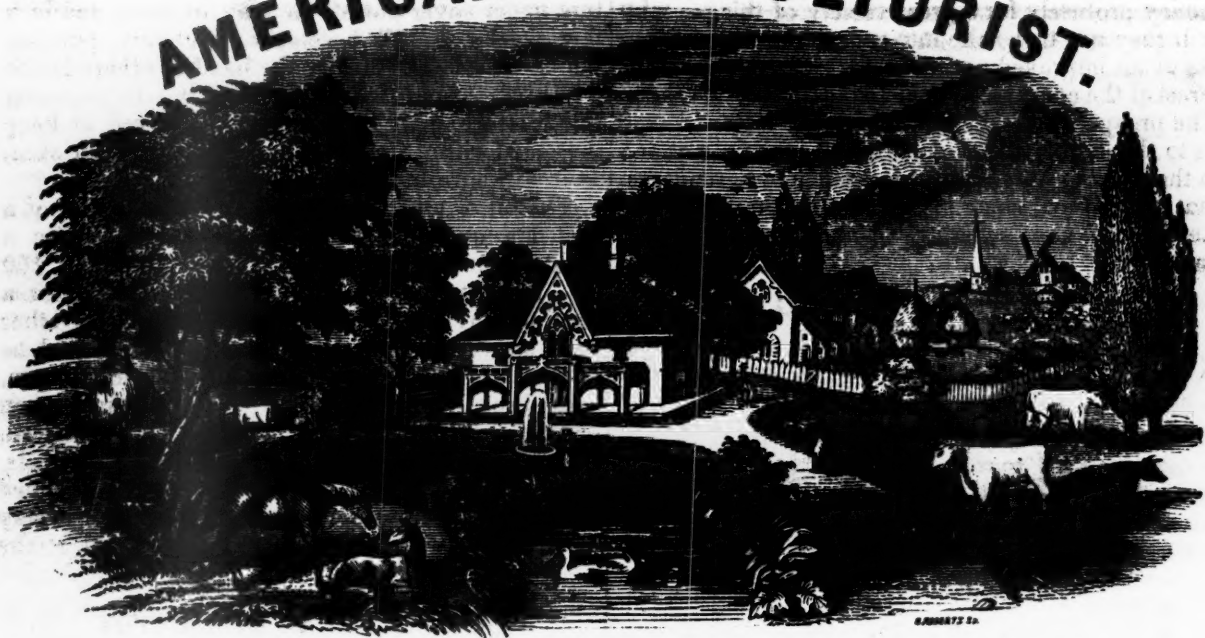


AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

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NO. V.

A. B. ALLEN, Editor.

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ADAPTATION OF OUR PAPER FOR GENERAL CIRCULATION THROUGHOUT THE UNITED STATES.

THE complaint is often made, that our paper being printed at the north or east, is not adapted to the wants of the south and west. This, if true, is a matter of serious consequence to us and our subscribers. Let us examine it for a moment, and see what is the force of the objection.

Our paper treats of every description of domestic animals and poultry; their characteristics, breeds, the best and the worst; their advantages and disadvantages; their mode of breeding, feeding, rearing and treatment; their uses, profits, management, &c., &c. It also treats of all cultivated crops, including fruits, shrubbery, &c.; the best seeds, mode of planting, cultivating, gathering and preparing for markets; the general principles of vegetation and the laws of vegetable life. It also treats of the principles of mechanics as applied to machinery used by farmers and planters; the best machinery and implements for agriculture, their uses and the particular superiority of some over others, and their adaptedness for particular purposes, &c. It also gives the latest improvements in those implements which may have been made, and suggests others; tells where they are to be found and the benefits that will follow from their use. It also specifies new objects of cultivation, and how they may be better prepared for a profitable market and more general use. These are a part only of the objects of our paper; yet they, with the other subjects treated, are of *universal interest and general application*. Nineteen-twentieths of all that is to be found in it is of the same use to one part as to any other part of America. Yet we find people constantly objecting that it is not printed in their particular section of country, and that it is not suited to their wants. Does it make any difference where a boy acquires

his education, provided it be a good one and he be correctly taught? Where he studies his profession of divinity, medicine, or even law? Cannot he take the principles he has acquired, and apply them equally well in any part of the Union? Is not the blessed sun-light of heaven, the rain, the dew, the heat and the frost, though sometimes differing in degree, of equal relative effect wherever they are felt, whether within the tropics or the polar circles, the eastern or western hemisphere?

There are, to be sure, some few articles of cultivation, which by their very natures are confined to particular climes and localities. The orange and the fig, the sugar cane, cotton plants and rice, are confined to a section of North and South America; yet that section is a broad one, and spaced through many degrees of longitude and latitude. These are largely treated through our columns, and probably more fully than in any other journal in America. Our pages are constantly open to new suggestions and approved modes of cultivation, and any intelligent writer from any section of the country has a full opportunity of having his views spread out before the community through them. Why not then embrace the information herein contained, and diffuse it broad-cast over the land?

If the question were as to a choice between a good paper printed here or there, it were another matter. But, throughout extensive regions this is not the case, and it is either a good paper at the east, or none at all; and even if there were one for any particular section of country, we might still urge a general circulation for our own; for no one will embrace all that is important to be known. Then the price of our periodical is so cheap, so utterly insignificant, that each farmer may well afford to take a dozen for gratuitous distribution without feeling the expense, and indeed, with the certainty of being ten-fold repaid annually for the

petty outlay. People think nothing of giving their money profusely for a great variety of things; why will they not then take into consideration the benefits of an improved agriculture? It is the great interest of the country, and the foundation of all others. The prosperity of the world rests upon it, and woe be to the nation that neglects it. It is mainly owing to the want of an enlightened system of agriculture, that Ireland and some of the continental districts of Europe are now suffering all the horrors of starvation.

HALL AT WYOMING.



FIG. 28.

The above cut represents the front elevation of a dwelling, in the castellated style, to be erected the ensuing summer at Wyoming, near Boston. It measures 75 by 36 feet. The walls are rough stone, and the flat roof is covered with bricks, one inch thick, laid in cement. The gothic doorway opens into a hall 32 by 10 feet. On the left of the hall is a drawing-room 32 by 22 feet, 16 feet high. On the right, are a library, dining-room, and two bed-rooms; above are eight spacious bed-rooms. The location of this mansion is well adapted to the style of its architecture, being on high ground, fronting a lawn of five acres in extent, and overlooking one of the most beautiful lakes in New England.

Wyoming is seven miles north of Boston, and was about a year since laid out in lots for ornamental cottages and villas. It comprehends a great variety of scenery—hill, dale, open lawn, dense forest, extensive lake, murmuring brooks, and cascades rushing down romantic glens—well deserving a name so immortalized by the poet Campbell.

The building now presented to the notice of our readers was designed by William Bailey Long, author of "Views of Highland Cottages," which work is for sale at the store of Messrs. Clark and Austin, No. 205 Broadway, New York.

TO PREPARE BONES FOR MANURE.

As mills for grinding bones are very costly, it is a great desideratum for the farmer to know how he can otherwise prepare them for his crops. By the following simple method he can reduce them to a fine powder and increase their value four-fold:—

Take 100 lbs. of bones, and place them in a kettle, or in an old tub unfit for further use, or even in a hollow scooped in the ground, and made water tight by lining with clay. Next take from 30 to 35 lbs. of oil vitriol (sulphuric acid), mixed with one-third to one-half its weight of water, and pour over the bones. In a day or two, the bones will dissolve into a liquid paste, to which there must be added, by stirring in, wood ashes or fine mould, until it is

of the consistency of thick mortar. Put the mixture under cover out of the way of rain, and in a few weeks it will become a light, dry powder, which may be applied by the hand or otherwise, to any kind of land that may require it. In preparing this mixture, great care must be observed to keep the oil of vitriol from touching the clothes or skin, as it will burn them as badly as fire.

The oil of vitriol, for this mixture, must be of a first-rate quality, otherwise it would require a greater quantity than given above, to dissolve 100 lbs. of bones. The mixture answers best for a turnip-crop; but it is highly valuable for other roots as well as for grass and grain. It should be applied at the rate of 20 to 40 bushels to the acre, sown broad-cast on grass-land, in the spring, or on grain and turnip-crops after harrowing in the seed. For garden or field-crops planted in rows or drills, as roots, corn, beans, peas, &c., it may be applied in the hills or rows at the time of sowing, or it may be afterwards sprinkled around the plants at the time of hoeing.

AGRICULTURAL CHEMISTRY.

It has often been sneeringly said, that chemistry has done nothing yet for agriculture. Those who make such assertions only show their extreme ignorance, coupled with rank prejudice. Look at the great number of accurate analyses of soils, manures, grain, vegetables and animal matter, which have been going on for years; and the late brilliant discoveries of the detection of ammonia in various substances where it was not before known to exist; and the formation of the *superphosphate of lime*, by the application of sulphuric acid to bones, thus making them easily soluble, and rendering one bushel as valuable for the growing crop as are four or even five bushels applied in the ordinary way. Indeed, in some recent experiments in England on a crop of rutabaga, made with great care, one bushel of bones has been found equal to thirty bushels, as usually applied, though nothing like this could probably be realized in a majority of instances.

From a late report of the Agricultural Chemistry Association of Scotland, we learn that the number of analyses made in the laboratory during the last six months has amounted to 210. Among these are three different oil-cakes. It is a remarkable fact, considering the great extent to which this article is used, and the length of time it has been employed, that its accurate chemical composition should have been so long unknown. Some of the practical benefits to the farmer arising from this analysis are indicated by the following propositions:—

1. That the per-centage of the protein compounds, in the analysis called gluten and albumen, is nearly equal to what is contained in peas and beans, and that, therefore, for the production of milk for the cheese-dairy, and also for *laying on muscle*, oil-cakes are as *valuable* as beans, peas, or clovers. This is a result somewhat unexpected, inasmuch as the value of oil-cakes in the feeding of stock has hitherto been supposed to depend very much upon their power of laying on fat; in other words, upon the per-centage of oil they contain.

2. The proportion of oil in these cakes is greater than is naturally present in any species of grain

or pulse usually cultivated. Oats contain as a maximum about 7, and Indian corn about 9 per cent. of oil, but these cakes contain 12 per cent., and are, therefore, in their ability to supply fat to an animal, *superior to any* of our cultivated grains.

3. These oil-cakes leave six per cent. of ash, of which one-third consists of phosphoric acid; 100lbs. of oil-cake, therefore, contain 2 lbs. of phosphoric acid. On the other hand, our common kinds of grain—wheat, for example—leave only two per cent. of ash, of which one-half consists of phosphoric acid, or 100lbs. of wheat contain 1lb. of phosphoric acid. *Therefore, for laying on bone, or for supplying the materials of bone to growing stock, oil-cake is twice as valuable as wheat, weight for weight, and more than twice as valuable as oats or barley, which are covered with a husk.*

4. Again, the same reasoning shows that, as grains of all kinds draw their phosphoric acid from the soil, these oily seeds will exhaust the soil of its phosphates to a much greater degree than our corn-crops; 100 lbs. of linseed will carry off twice as much of them from the soil as 100lbs. of wheat.

5. But the same circumstances supply an additional reason why the manure of *full-grown* store stock fed upon oil-cake is so much richer than that obtained by the use of any other kind of food. It is richer, because the proportion of the protein compounds (albumen, &c.) in the oil-cake is greater than the fattening animal can appropriate, and thus much of them passes off in a more or less changed state, and is mixed with the dung. The oil also is in larger proportion than can at times be laid on their bodies even by fattening stock, and this unquestionably contributes to the fertilizing quality of the manure. But the full-grown animal appropriates scarcely any of the *phosphates*; the whole of these, therefore, which the animal consumes in its food, appears again in its dung. And the oil-cakes being richer in these phosphates, weight for weight, than any kind of grain used for food, the dung thus made is also richer in these phosphates than that which is obtained from animals fed upon almost any other kind of food.

Among other things, Professor Johnston travelled several months in different parts of the country, and delivered a series of lectures to various assemblies of farmers, after which an application was made by the parochial schoolmasters of Scotland for three lectures on the best mode of teaching the elements of Agricultural Chemistry to older boys in their schools. Professor Johnston complied with the request, and gave gratuitously the lectures solicited. They were attended by upwards of 400 schoolmasters, and excited among them the deepest interest.

We hope American schoolmasters will soon make a similar request, and that they may find some one equally competent to lecture to them as is Prof. Johnston.

HOW TO MAKE MEAD.—To one gallon of water add four pounds of pure honey, and aromatic herbs or not, according to taste. Boil the whole in a copper nearly three-quarters of an hour, and skim well. Then allow the mead to stand in the copper until nearly cold, when it should be bottled up and kept till old enough to drink.

SOILING, OR STALL-FEEDING.

THE advantages which arise from stall-feeding, in Europe, and in some parts of this country, are very great. The same number of animals are maintained on the produce of less than half the quantity of land that would be required, if the cattle were allowed to feed in the fields; but whether this plan can be adopted in all parts of the United States, yet remains to be proved. In general, land is cheap in this country, labor high, and produce usually brings moderate prices when compared with those of Europe. We think, however, that the subject is highly worthy of a series of experiments accurately made and recorded by competent persons residing in different parts of the country, and the results made known as proposed in our last number by Dr. Field.

The object of any judicious farmer should be, to improve his own condition, by improving the condition of his farm; and as this cannot be done without manure, and as manure cannot always be had without stock, it becomes a matter of prime consideration how the animals can be most economically maintained and made available, and by what management the largest quantity of manure can be obtained.

The experience of the best farmers in Europe and a few well authenticated cases in this country, prove that, by the growth of green crops, such as clover, rye-grass, lucerne, Indian corn, turnips, mangel-wurtzel, carrots, and cabbages, the same ground which in poor pasture would scarcely feed one cow in summer, will, under judicious management of the crops above mentioned, feed three the whole year round, if the cattle are kept and fed in the house; and further, that the manure produced by one of these cows so fed, and well bedded with the straw saved by using better food, will be equal to that produced by three cows pastured in summer, and kept badly littered in winter, with only straw and hay to eat. If therefore, three cows may thus be provided with food in the house all the year, from ground which will scarcely feed one under pasture for the summer; and if one cow so fed in the house will afford as much manure as three fed in the field; it follows that any one who may now be able to keep only one cow, would, by adopting this plan, be able to keep three, each producing as much manure as three cows fed in the usual way; and that he will have nine times as much manure by this method, as he would have by the old.

In proof of the advantages which attend the soiling of cattle, it may be stated, as the result of an experiment actually made in England with an acre and a half of red clover, that seven milch-cows were fed with the produce for 64 days, each cow being supplied with 168 lbs. of clover daily, making in all 33½ tons of produce from the acre and a half of land, in the 64 days; and the value of the manure produced by the seven cows so fed was very great. Manure constitutes, in truth, one chief source of the farmer's wealth; yet from a too common disregard or mismanagement of this important element of fertility, what serious losses every year are sustained, not by the farmer only, but by the community at large.

To insure the advantages of stall-feeding, however, both as respects the health and progress of the cattle, and the collection of the manure, it is essential that the sheds, yards, and stalls should be so arranged as to economize labor, secure the warmth and comfort of the animals, and prevent the slightest waste of the manure, whether in a liquid or solid state. The urine should be preserved in tanks or pits filled with pulverized charcoal or peat, and the dung-yard should be deepened and hollowed out, so as to retain all the moisture of the manure, in order that not a drop may drain away and be lost to the farm.

Young animals requiring exercise, will generally grow better, and acquire more vigor in the open pasture, than when confined in a house or fold; but cows are impatient of heat, when the sun scorches and the gad-fly stings, and feeding them in houses increases their milk, and the manure is thereby preserved and greatly increased. Warmth and rest are necessary for the fattening of all animals, and these essentials are secured by stall-feeding.

A bullock fed in the house consumes much less food, and fattens much sooner, than if fed in the field, the difference amounting in many cases to one-half in favor of house-feeding. Heat and cold, and the variations of climate, affect cattle in the open field, whilst those under cover are protected; and much exercise prevents the secretion of fat. This applies equally well to sheep, pigs, and poultry, and by the judicious farmer, should never be lost sight of.

Working horses and oxen are greatly benefited by soiling, being saved thereby the labor of collecting their food, after their task is done. They can also fill themselves sooner, and consequently have more time for rest; and they repose much better in a stable or shed, with plenty of litter, than in an open field, where there are so many things to annoy them.

Bullocks fed in the house, become more tractable for work, and are free from many accidents and disorders. The size and symmetry of cattle thus fed and sheltered, show that stock so kept will generally surpass that which is exposed to the vicissitudes of climate and other circumstances inseparable from open grazing, even on the best pastures.

The practice of soiling cows and cattle, either tied up in stalls, or in sheds, or fed loose in the fold-yard, is not so general as that of horses; but since it answers for horses to be fed in the stable, there can be no reason why house-feeding should not answer for cattle. Any quantity of clover and other green crops, may be consumed in this way to the great benefit of the tillage-farmer, who always needs more manure than can be accumulated from the straw of his grain-crops alone; and it is obvious that a much larger quantity may be obtained by this practice, than in the ordinary way, while the quality is greatly superior.

When cattle are soiled in the open farm-yard, sheds should be fitted up in some convenient part of it, for shelter from the sun and rain. They may have the use of the yard for air and exercise, and when confined entirely in the stalls, they must be kept dry and perfectly clean. To allow them to

sleep or stand in wet, or dirt, would be very injurious,—lessening the milk in one case, and retarding the fattening in the other, and injuring their health in both.

In stall-feeding, the food should be given frequently and in small quantities. By a judicious mixture, and a regular supply, a much greater increase of flesh may be produced than by any irregular mode of feeding, however good the quality or abundant the quantity of the food. To over-feed, is as bad as to starve a beast, and it produces similar effects. On the least appearance of a loss of appetite, the quantity of food must be lessened.

When the diet of cows is suddenly changed from dry food to green, they are apt to injure themselves at first, by eating too eagerly of the green food; and on this account, care should be taken that they have not too much at once, but that it be given often and in small quantities.

Clover should be given sparingly at first; for if too abundant, or if it be given in a wet state, it is apt to bring on a disease called *hoving*, or swelling. This complaint is supposed to arise from the air, or gases generated by the fermentation of the clover in the stomach of the animal; and if relief is not speedily afforded, death is liable to ensue. The clover should be cut the day before it is given to the cattle, which will generally prevent their swelling; but if this disease should attack them, half a pint of train-oil, an egg-shellful of tar, or a pound of salt dissolved in water, will soon afford relief. Straw should be given with the clover as fodder, which will correct a tendency to looseness in the bowels. Pigs may also be soiled on clover with much advantage, and for that purpose alone there ought to be a small patch of this grass in every cottage garden.

In soiling, the cattle should always have an abundance of good water, and a careful person should be appointed to attend them, and to supply them regularly with fresh food. Indian corn or millet sown at different times, to be cut in succession, when the clover fails or becomes over-ripe, are highly useful, as the dairy cows will otherwise fall off in milk. In Holland, the cows are fed in the house, are supplied with water mixed with oil-cake, rye or oatmeal; and they are allowed a supply of salt, which conduces to their health, and improves the quality, and increases the quantity of their milk.

In feeding cows, it has been recommended to commence at six o'clock in the morning, with turnips, clover, or other green food, according to the season; and then to give a feed every two hours till night, with a small parcel of hay between each; that is, six feeds of green food, and five of hay each day, with hay at night. Two pounds of hay will be enough at each feed, and four pounds at night, which make fourteen pounds in twenty-four hours. The cows should have water twice a day. Sixty pounds of mangold wortzel, or turnips, per day, is enough for a cow. Previous to being given, the roots should be washed clean, and cut into large slices; if cut into small, round, or square pieces, there is more danger of choking than when cut into large slices. A little salt scattered on the roots, after being cut, will be very serviceable.

ble, care being taken, however, not to give too much. Indeed, a piece of rock-salt for the cattle to lick, will always be useful, and will serve to improve their condition and health.

Cows, when kept in the house, should be carefully curried and cleaned, which is absolutely necessary for their health, and will materially increase the quantity of milk. Too much pains cannot be taken in this respect. All stall-fed cattle should, in fact, be dressed and curried as carefully as a favorite horse. You cannot handle and familiarize your milch-cows too much, nor treat them too kindly; and, indeed, the same may be said of all your cattle.

Do not allow the chaff of your grain to be lost. If your cows are confined to dry food, at any time, the change from grass, or green crops, is apt to affect them; the dung becomes dry, the coat *stares*, and from the costive state of the bowels, diseases ensue, which sometimes end in the death of the animal. Now chaff is a good remedy in such cases, if well boiled and mashed up with potatoes and some seeds or bran added to make it palatable. A bushel given in this way, night and morning, will open the bowels, make the skin look sleek and healthy, and increase the quantity of milk. When the chaff of grain cannot be had, finely chopped hay or straw may be substituted. The mixture should be of such a consistency as to be easily stirred about with the hand. A greater quantity of potatoes may be given with advantage in this way, than in any other; but they must be boiled separately, for potatoe-water is injurious to cattle. The mixture may be improved by some ruta-baga turnips, which may be boiled with the chaff.

It may be imagined, perhaps, by some persons, that cows will give more milk when pastured in the field, than when fed in the house. This is altogether erroneous; for the less fatigue a cow has to undergo, in obtaining her food, the more milk will she yield; and the practice of leaving cows out during cold nights, or exposing them in summer to the heat and flies by day, is certainly injurious. In mild weather, however, they may be left out, if unavoidable, without much injury; but whenever circumstances admit, let the provender or grass be carried home, and given to the milch-cows within doors, leaving the young stock to pasture in the fields.

It has been estimated that the manure of one cow, fed and littered in the house, is sufficient to top-dress an acre of land; whereas, the dung of cattle, if left upon the grass, in an unfermented state, is injurious; for it prevents all growth for a time and afterwards raises tufts of coarse herbage, which cattle will not eat. The greater portion of the dung dropped in the fields, goes off in evaporation, and is lost; and grubs and flies are generated in and under it, whilst it remains; but if it were collected and spread at the proper season, it would improve the vegetation, and impart fertility to the soil.

In Switzerland, in very elevated situations, where grain does not ripen, the farmers, who depend chiefly on the produce of their cows, have the finest of herds, owing to the care taken in crossing the breeds and attending to the dressing and feeding of them regularly in folds, and stalls. Land, which, from its steepness, could only

be pastured by sheep or goats, is irrigated, top-dressed, and constantly mowed, to feed the cattle within doors, where they are regularly supplied with fresh grass; and the quantity of dung thus obtained, for top-dressing the grass-lands in the spring, keeps them in a high state of fertility. The same system prevails in the flat countries of Belgium and Holland, and is practised to a great extent in Britain, France and Spain, and is receiving increased attention we are pleased to see in the United States.

HORTICULTURAL TOOL-CHEST.

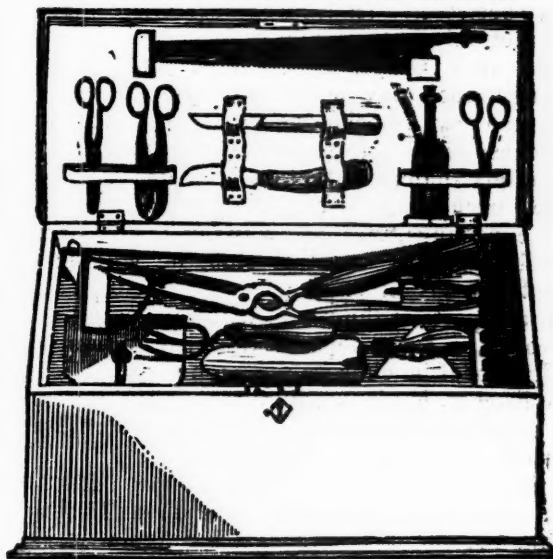


FIG. 29.

THE convenience of having at hand the requisite tools or implements for gardening and pruning purposes, and kept in a place where they can always be found, is obvious to every one. If suffered to lie, or be scattered about the premises, they are liable to be mislaid or lost, and more time is spent in looking them up than they are worth. These difficulties, we think, may be obviated by possessing a small tool-chest purposely adapted to keep them. It is very complete, with quite a variety of implements, only part of which are shown in the cut. The price, with all its fixtures, is \$18.

QUANTITY OF CORN TO AN ACRE.

We have often heard it remarked that 100 bushels of shelled corn never were raised upon an acre of land at a single crop; and if we recollect rightly, we read in the reported proceedings of a late meeting held in Boston, of the Legislative Agricultural Society, that there were several individuals present, who would be willing to go a long distance to see an acre of corn containing a crop of 100 bushels. For the benefit of all who may be sceptical on this point, we will give the result of a little experiment made by us a few weeks ago, and has since been repeated by others with but a trifling variation.

From five ears of Brown corn, nine or ten inches in length, we shelled a full quart, Winchester measure, which, when counted, contained 2,000 kernels, or 64,000 grains to a bushel. In referring to Mr. Brown's article on the cultivation of this corn, in our March No., it will be seen that he

plants his corn in hills, three feet apart one way and two feet the other; and that, at the first hoeing, he reserves three stalks to a hill, each of which, we may reasonably conclude, will produce one ear, and in many cases, two or more. Admitting that an acre thus planted will contain 7,260 hills, and that each hill will produce an equivalent of three ears, ten inches in length, the result, according to the premises above, will give 136½ bushels of shelled corn!

NEW YORK FARMERS' CLUB.

For some weeks past the meetings of this Club have been well attended and much interest manifested, not only in the topics of discussion, but in the distribution of grafts, cuttings, and seeds. Although much may be said and done to little or no purpose by associations of this kind, yet an immense deal of good results from them, and it rarely happens that a farmer, or any one else, occupying a rod of ground who attends these meetings, will go away dissatisfied or unpaid for his trouble. At this club, he will generally meet persons of experience and intelligence from various parts of the world who can enlighten him, perhaps, in every department of agricultural knowledge; or if he chooses, he is not compelled to be the listener, but is kindly and thankfully permitted to impart whatever he knows, and to contribute for distribution whatever he may please.

The Turnip-Cabbage.—Mr. Samuel Allen presented a root-cabbage, weighing about 15 lbs. He remarked that the seed of this singular vegetable was from Russia, and he had understood that it was good for cattle, and yielded a heavy crop. He said that he had brought it for the purpose of gaining information as to its properties and uses, and desired that some member should take it home, plant it, preserve the seed, and return them with a report to the club.

Dr. Underhill replied, that this root is much cultivated in Germany, by the name of *Kohlrabi*, or ground-cabbage. He had raised it on his farm, he said, and that it kept well through the winter, and when boiled, the root tasted like a cabbage, but was of a coarse texture. (a.)

Silk-Grass, or Florida Hemp.—A letter was read from Richard H. Jones, of Charleston, S. C., asking for information as to the price per ton, for the well-prepared fibres of what he calls *Silk-Grass*, or *Yucca filamentosa*. He had understood that some dealers in flax and hemp, in the city of New York, had pronounced the foliaceous fibres of this plant to be worth \$135 per ton. If such should prove to be the case, he thinks that the South will become possessed of a new source of wealth. Mr. Jones requests information from those engaged in the manufacture of hemp and flaxen goods, as to the uses to which this article may be applied, and its value, when compared with that of flax and hemp. He also wishes to know what amount of fibre can be produced from an acre, the soil in which it will best flourish, the modes of culture, preparation of the article for market, and where and at what price he can procure the seed. (b.)

The first Seed-Store in New York.—Mr. Grant Thorburn rose and said, This is the first meeting

of this Club which I have attended. I am seventy-five years of age, and feel great pleasure in looking back to the early periods of my life—in tracing the providential occurrences of it. I began life as a maker of wrought-iron nails—after the old fashion, with a hammer; cut nails afterwards came in and cut me out. I then set up a grocery in order to maintain my little family; but a grocery was established opposite and cut me out, too. What seemed at first evils, I soon after found to be blessings. I had saved about \$100. I knew very little of plants or seeds, but happening one day in market to notice a plant in an earthen pot, I asked its name, and was told it was a geranium. I bought it, and thinking that the brick-colored pot would look better if it was painted green, I so painted it. The geranium was the rose kind. I thought it strange that such a green plant should have the smell of roses. I then got several pots and exposed them in my window. One day a coach passed, out of which a lady leaned to view my green pots. She stopped and bought some. This was in 1799. I then began to inquire for seeds—no one then made a business of selling them. I accidentally met with a man who had some, and I bought his stock for \$15, in April, 1801. These were soon sold, and I looked about for more, and found a lot of two barrels of imported seeds. I got them cheap, and sold them at apothecaries' profit. Then I hardly knew geranium from cabbage. I was the first to import the potatoe oats from Scotland. Since that I have sold seeds here to the amount of \$25,000 per annum. The celebrated William Cobbett once set up a seed-store in opposition to me. His public advertisements were, that he sold seeds from sunrise to sunset—I advertised that I sold them from sunrise to moonset! I beat him. On the subject of the potatoe, let me observe, I have lately sent to the Emperor of Russia ten pounds of potatoe seed at the price of twenty dollars the pound! And I now say, resort to the seeds! Save the seeds!

Culture of the Grape. Dr. R. T. Underhill having been called upon for information on this subject, remarked that the interest in the cultivation of the grape rapidly increases, and in a few years it will be more extensively raised. He had seen late publications [The February numbers of the Farmers' Library, and the American Agriculturist?] showing how to cultivate the grape in America. These directions may do well for Germany, he said, but not for this country. A vineyard cannot be made here as it is there. Cuttings will not answer to plant in our vineyards. They must first be started in a nursery and transplanted at two, three, or four years old, from the slip.

Mr. Browne here asked leave to inquire of Dr. Underhill whether Mr. Longworth of Cincinnati, and others, do not plant their vineyards with cuttings, and whether they would not live if screened from the intense heat of the sun in the early part of the season, and watered in times of drought.

Dr. U. replied that they might succeed in damp soils—but the more dry the soil the better the vines. Germans, here, he said, have tried watering them and have failed of success—the heat of summer is too great. The plan of watering vineyards made

by planting slips is too troublesome, and will not succeed. (c.)

We are now, continued Dr. U., in the season of grape-vine pruning, which may be continued for a month. Spur-pruning, he said, is generally practised in the city, but this will not do so well for the open vineyard. There we must cut away the old wood and bring in the new. By close pruning, we have less fruit, but more sugar, and are more sure of ripening the grapes. In France, he said the bleeding of the vine, by pruning, is injurious; but not so in Germany and with us.

(a) Kohlrabi (*Brassica oleracea caulorapa*, of De Candolle), or turnip-stemmed cabbage, comprises numerous sub-varieties; but those regarded as the best suited for field-culture are the large red and green sorts. It is said to have been brought originally from Siam, and is now much cultivated in Germany and the low countries, as well as in the north of France, where it is chiefly given to milch-cows, for which it appears to be well adapted on account of its possessing but little of the acidity or bitterness found in the turnip, which so often imparts a disagreeable flavor to butter and milk. The bulbs, which weigh from five to fifteen pounds each, are more nutritious than the turnip; and being of a close texture and less watery, they contain more food in the same space. They have a strong power of resistance to putrefaction, and consequent endurance of frost and wet. They produce as high as 18 tons per acre, or about the same as the rutabaga, or Swedish turnip; and the soil and culture that is suited to the one, are equally adapted to the other. They may be taken up in the fall before the closing of the ground, and stored like potatoes or turnips for winter use, or they may be suffered to remain in the ground until spring.

(b) The genus to which this plant belongs consists of evergreen shrubs, with the habit of palm-trees, and are natives of America from Virginia to the straits of Magellan. They usually thrive in a deep sandy soil or sandy loam, that is rather dry, and even will prosper close by the sea. They may be propagated either by suckers, which are thrown up by the roots, or by the side-shoots that are occasionally produced on the stem; or they may be raised from seeds, sown immediately after gathering, which will come up in a month or six weeks. The leaves of most of the species afford a fibre when treated like the stalks of hemp or flax, and have long been used by the Indians, in the manufacture of cordage, cloth, hammocks, or swinging beds.

The *Yucca gloriosa*, commonly called "Adam's Needle," and the *Yucca filamentosa*, or the "Thready Adam's Needle," are both natives from Virginia to Florida, and probably throughout the maritime parts of all the Southern States. The *Y. gloriosa*, although somewhat tender, has long been cultivated in the gardens and hot-houses of Europe, as well as those of America, and is greatly esteemed as an ornamental plant. The stalk or stem rises to a height of two or three feet, and is clothed with leaves almost to the ground. The leaves, which are broad and stiff, but thin, are of a dark-green color, and end in a sharp, black spine. The flowers usually grow in panicles on a slender stalk, which

springs from the centre of the leaves. They are bell-shaped, and hang loosely downwards, with each petal white within, but marked on the exterior with a purple stripe.

The *Y. filamentosa* grows to a height of five or six feet, with leaves and flower-stalk resembling those of the *Y. gloriosa*; but the leaves, which are obtuse, have no spines at their ends, and have long threads hanging down on their sides. The flowers are larger and whiter than those of the last-named species, and grow close to the stalk.

(c) Had not these remarks by Dr. Underhill applied directly to our article on the grape-vine in the February No., we should have been disposed to pass them in silence, as we often have done, as one of his well-intended, though "random shots;" but as they have already been heralded to the world through several prints, we feel bound in duty, both to the public and ourselves, to set the matter right. In the first place our article was written with the utmost care, having been drawn from sources founded on long experience, and, as we supposed, could not admit of a doubt. Furthermore, we have known from our boyhood that vines would grow from cuttings, in ordinary seasons, without any very extra care, which is fully corroborated by the following extract from a letter dated at Cincinnati, March 23d, 1847, from N. Longworth, Esq., whose renown, as a wine-grower, is too well known to be repeated here:—

"We usually plant cuttings, and it is invariably done when the person buys them, as roots would be too dear, and in favorable seasons but little advantage is gained. We never take the trouble to water the cuttings. In favorable seasons, but few die."

IS BLEEDING, CAUSED BY PRUNING, INJURIOUS TO THE VINE?

THAT the bleeding of the vine is not so serious an event as is generally believed, is well known to practical men, and they are certainly right; for the rising sap of the vine consists mainly of water, carbonic acid, and ammonia, all derived from the soil, and therefore from a source of inexhaustible supply. If no other matters were present, the vine would be of the nature of a slender water-pipe, through which this fluid passes in its way to the leaves; but it is not so. On the contrary, the rising sap also dissolves in its passage all soluble matters with which it is brought into contact, among which are, especially sugar and gum, the organizable matters out of which the future leaves and fruit must be prepared. Now, a plant cannot obtain, these substances from the soil; they lie in its own tissues and there only; and it is obvious that if they are all washed out by the passage of an enormous quantity of watery matter through the plant, most of which is wasted, there can be no formation of leaves, flowers, and fruit. Theoretically, therefore, bleeding is a dangerous circumstance, and may be fatal.

But in truth, Nature is so prodigal of all means or materials required for the security of life that exhaustion is by no means easy. Infinitely more of everything is provided than is really required, on purpose to compensate for accidents. A tree is

loaded with countless flowers; a hundredth part of them, when changed to fruit, is more than the plant can bear; they, therefore, drop off by thousands and strew the ground to the alarm of the inexperienced gardener, who is afterwards surprised at the appearance of an abundant crop. Strike a fir-tree in the spring, and forthwith the air is filled with myriads of millions of pollen-grains, provided for the fertilization of a few dozen cones; some hundreds of seeds receive the influence, the rest of the pollen-grains fly to waste. A calculation proving this, is to be found in the London Botanical Register, where the editor shows that 27,000,000,000 pollen-grains were provided on one plant of *Glycine sinensis*, in order to insure the fertilization of 4,050,000 seeds, or about 7000 pollen-grains to each seed! And so it is, with few exceptions, throughout nature. The starch, gum, or sugar lodged in a plant, however, is no exception. Some of those substances must be present; but they are provided in such prodigal abundance in the teeming bosom of Nature that common accidents can hardly exhaust them.

We would not, however, advise persons who have weak vines to disregard their bleeding; nor are we sure that the strongest and the most vigorous vines might not be injured by a continuance of profuse bleeding; although an occasional effort may be borne. A strong, robust man will bear the loss of a pint of blood without inconvenience; but take from him four times the quantity, and his nature will prostrate under the effort. In like manner, an ailing old man will perish under what a stout, healthy boy would endure without a complaint.

TO CURE RENNET-SKINS.

RENNET, or runnet, used in cheese-making, is made from the stomachs of calves, which are sometimes called "vells." As soon as the calf has sucked whatever he likes, he should be killed and the stomach immediately taken out. The coagulated or curdled milk should then be poured into a dish and examined; and any substance found in it, but curd, should be removed. The serum or watery part left in the stomach should be pressed out with a clean cloth. Then, as it is only the inner coat that is to be preserved, the outer skin should be well scraped, and all the fatty and useless covering thrown away. The curd should then be replaced in the stomach, and two gallons of strong brine with two lemons added to every six vells, and suffered to soak for ten or twelve hours. The lemons do away with any disagreeable smell, and give the rennet sweetness and agreeable flavor. Twenty or thirty gallons of vells may be made at a time, if convenient, as they are found to be much better when large quantities are made. After salting, the vells are hung up to dry, with a piece of flat wood put crosswise into each to stretch them out. When perfectly dried, they should appear somewhat of the color and texture of parchment. They should never be used in cheese-making, however, before they have stood at least two months; and they are still better at the end of a year; for, if they are not old, the rennet made from them will cause the cheese to "heave," and become full of holes or "eyes."

QUANTITY OF BROWN CORN NECESSARY TO PLANT AN ACRE.—From the data given in the article, page 141, the following table has been constructed, and may be relied upon as a general guide for knowing the quantity of this, or any other variety of corn having grains of about the same size, required to plant an acre of land with the hills at the usual distances apart.

| Distances of hills apart. | Quantity required | |
|---------------------------|-------------------|-------------------|
| | 4 grs. to a hill. | 5 grs. to a hill. |
| Ft. Ft. | Qrts. Dec. | Qrts. Dec. |
| 3 by 2 | 14.52 | 18.15 |
| 3 " 3 | 9.68 | 12.10 |
| 3½ " 3 | 8.30 | 10.37 |
| 3½ " 3½ | 7.11 | 8.89 |
| 4 " 3 | 7.26 | 9.08 |
| 4 " 3½ | 6.22 | 7.78 |
| 4 " 4 | 5.44 | 6.80 |

TO DESTROY THE CANADA THISTLE.—We extract the following quaint directions for extirpating the Canada thistle, from a lady's portfolio, in which there is much good sense; yet we would not let these vile intruders have a chance of living until August merely for the sake of the experiment:—

"If thistles be cut in Aprile,
They appear in a little while;
But if cut in May,
They peep out next day.
If cut in June,
They re-appear too soon;
If in July,
They 'll hardly die;
But if cut in August,
Die they must."

TO PREPARE BEES-WAX.—To obtain wax, boil the combs in a strong muslin bag, in a saucepan, with water sufficient to keep the bag from burning; and whilst boiling, continue to press the bag with a wooden slice or spoon, to extract the whole, as you skim off the wax. Drop the wax into cold water, where it will swim on the surface. The wax thus obtained will still want refining, to effect which, place it in a clean saucepan, and melt it over a slow fire. Then pour off the clear wax into proper vessels and let it cool.

NEW YORK STATE AGRICULTURAL SOCIETY.—We invite attention to the Premium List of this society, published in the present number of our paper. They amount to upwards of \$3,000, in cash, besides a large number of books. The show is to come off on the 15th and 16th of September next, at Saratoga. The show ground to be enclosed will comprise an area of fifteen acres. Temporary buildings of ample dimensions will be erected within the enclosure, and every reasonable accommodation be provided for all exhibitors. Arrangements will be made with the several railroad companies for the gratuitous transportation of stock, as well as implements, &c., designed for exhibition. The hotels at Saratoga have agreed not to raise their prices above ordinary charges, which will be from one to two dollars per day, according to the style of the hotel at which visitors please to put up. Hon. Silas Wright, late governor of the State, will deliver the annual address upon the occasion.

ON MANURING PEAT-LANDS.

THE question often arises in the mind of the agriculturist, *why do peat soils require an application of manure?* Experiment has almost invariably proved, that if yard or mineral manures are copiously incorporated with peat soils, the favor is as promptly reciprocated as when they have been employed upon a diluvium, or alluvium soil.

Individuals of practical information only, reason upon this subject, something after this wise; that the substance composing peat-beds once possessed vitality, and that all the essential elements for maintaining life and growth were present; consequently, these essentials must still abound in the semi-decayed body, and why should these soils require additional organized matter in the form of yard-manure, to induce a good degree of productiveness? We conceive that there may be three reasons why productiveness is vastly augmented upon those lands by applying manures. Firstly, an excess of deleterious acids; secondly, want of appropriate inorganic nutriment; thirdly, want of one essential organic element.

First, that there is excess of deleterious acids which retard the growth of cultivated crops.

This proposition will be readily conceded, when we inquire from what class or classes of plants peat has originated. The first impulse given to a peat production, is the transportation of organic fragments by water to horizontal or slightly inclined grounds which produce a marsh.

Mosses, lichens, and reeds, take root upon this marsh, flourish through the summer, but are stricken down by autumnal frosts, and are succeeded by a more luxuriant growth the following season. Thus the destruction and reproduction of these annuals are perpetuated, each season's product becoming nutriment for their successors.

In a few years, there is such an immense accumulation of organized matter from perishing cryptogamous plants, and from the accessions made by water, that plants containing more woody tissue begin to thrive, such as the brake-fern; these disappear after a time, and are succeeded by marsh grasses (*carexes*), and stunted, low, land shrubs. These again are followed by larger shrubs and trees.

Lastly, when the bed has become deep, somewhat dryer and more perfectly decomposed, there emanate the sturdy oak, the saccharine maple, and majestic elm, the richest and most immense spontaneous vegetable productions of the earth.

By a cursory glance at the chemical nature of those plants which at different periods have flourished upon peat-beds, we discover in those first thriving, a super-abundance of oxalic and tartaric acid, which afford not the slightest nutriment to cultivated plants. On the contrary, their presence is exceedingly pernicious to plants abounding in animal nutriment. Again, in the *carexes* or stunted trees, acidiferous compounds predominate, which in constitution are diametrically opposed to those occurring in cultivated plants.

If any considerable portion of these noxious compounds still remain in peat, by adding a substance that neutralizes their acidity, a mighty barrier to the prosperity of cultivated vegetation is removed.

Hence, when yard-manure, abundant in alkaline compounds, is added to soils abounding in acids, a non-injurious compound results. The same phenomenon occurs when gypsum or lime is incorporated with acidiferous soils.

The second defect is a want of appropriate inorganic nutriment. Although peat contains an abundance of silex, which is an important constituent in vegetable development, it may not, and, as we shall contend, does not contain a sufficiency of other elements no less essential than silica, in vegetable economy. We may here introduce a physiological axiom, which will enable us to comprehend the phenomenon attending the application of mineral manures, and to better appreciate the value and certain indispensability of inorganic fertilizers.

The truth is this; all plants require inorganic nutriment; each species will select those elements peculiar to itself; perfect development of any plant is not insured unless there is a sufficiency of every requisite element, be it ever so diminutive in quantity. The second and third clauses of this truth have a material bearing upon the condition and improvement of peat-lands.

Each plant electively gathers from the soil those elements most congenial to its own prosperity; else how should the ash of wheat yield eight times the amount of magnesia that potatoe-tops do, or oats contain fifty-three per cent. of silica, and beans only one per cent.; and why should there be six per cent. of soda in mangel wurtzel, and no traces of this alkali in oats all grown upon the same soil? Those organized bodies that now lie mouldering in peat beds were once hardy shrubs and forest-trees, requiring only those elements that would impart strength and inflexibility to their tissue, such as lime and silica; they predominate in the ash of forest-trees to the almost entire exclusion of magnesia, alumina, and phosphates, all of which are indispensable to a luxuriant growth of crops furnishing animal nutriment.

That a deficiency of an essential element produces an abortive crop, is strikingly illustrated in the culture of cereals; those sown upon soils containing an abundance of organic matter, lime, and soluble silica, produce gigantic stalks destitute of grain; by adding magnesia an exuberant growth of stalk is induced, bearing a withered grain, covered with an exceedingly tenacious epidermis. Again, add a compound yielding phosphoric acid to the soil, when a perfect plant is developed, bearing a due share of nutritious aliment; evidencing that the weal or woe of the crop was dependent upon the presence or absence of the last administered compound.

Practical experience has long since established the fact that cereals do not flourish so well as a first crop upon reclaimed peat lands; but that they are more successful after the land has received a dressing of yard or mineral manure, and has been ameliorated by tillage with other crops. Can any other cause be assigned for the increment given to the cereals, than that a deficient element has been supplied by the yard, or mineral manure? From this view of the inorganic ingredients in peat-soils we deduce two conclusions, showing the necessity of applying inorganic manures.

First, that the organized substance constituting peat in its primeval or vital state, contained only traces of several inorganic constituents that are found abundant in cultivated plants. Second, that a portion of these diminutive constituents have during the process of decomposition combined with pernicious acids, and are consequently unavailable nutriment. Now to the third defect in peat-soils for the production of cultivated crops, viz: the want of one essential organic element.

Admitting that the four elements, carbon, hydrogen, oxygen, and nitrogen, are essential and did once exist in the substance that now composes the soil; we have now to inquire whether these elements exist in the present state of the organic matter, and whether the peat in itself is adequate to supply all the elements necessary for the growth of cultivated crops.

The organic portions of plants are mainly made up by the three elements, carbon, oxygen, and hydrogen, the per centage of nitrogen being exceedingly minute in all; but more especially in spontaneous ones. Chemical research has thoroughly established the fact, that but a diminutive quantity of nitrogen exists in spontaneous plants; which fact will be at once conceded, when we consider that upon the presence or absence of the azotized principle, depends the relative value of all fruits, grains, roots, and grasses, cultivated for animal subsistence. The major part of all peat-beds consisting of semi-decayed spontaneous plants, can contain only those elements peculiar to that class which, when compared with the cultivated ones, are found to be much inferior in the azotized principle. Allowing all the nitrogen contained in the growing forest yet to remain in the decomposing mass, this vital principle will not be found to that extent, that it is in animal excrement, or decomposing cultivated plants. But to allow the retention of all the elements composing an organic body, during the process of decomposition, would be an absolute violation of the immutable laws that govern the eremacausis or decay of bodies. During the transmutation of an organized body from an active to an inert state, a slow combustion is carried on, and there are incessantly gaseous products evolved; among the most abundant of these, is nitrogen in the form of ammonia. This compound is evolved most freely in the early stages of putrefaction, from the slight affinity it possesses for the substances with which it is associated. Consequently, a decaying body exposed to atmospheric agencies, is soon deprived of the all-essential principle, azote. Now, in the process of decomposition, which results in the formation of our peat beds, azote is the most important element eliminated; the decaying mass being deficient in ammoniacal attractions, which escapes with aqueous vapor into the atmosphere. This continuous process of elimination readily deprives the soil of its originally diminutive quantity of azote.

If then, the organized soil has relinquished in the putrefactive process, a greater portion of one of its pre-eminent constituents, it is evident, by supplying this deficiency in the form of animal emanations, the luxuriance of those crops requiring a large per centage of azotized nutriment, is greatly enhanced.

Hence, in the application of yard manure, abounding in alkalies and azotized compounds, to peat lands, two-fold results are attained, the alkalies neutralizing deleterious acids, and the azotized matters, by decomposition, supply the deficiency of azote.

By the use of mineral manures the same primary object is secured, as by the inorganic elements in yard-manure, and as a secondary effect, the unavailable nutritive compounds in the soil are gradually transformed into appropriate vegetable nutriment.

W.

Dutchess Agricultural Institute, Feb. 25, 1847.

THE HONEY-BEE.

I OBSERVE, with great pleasure, that a very sensible writer has commenced a series of articles in the *Agriculturist* on this valuable insect, which I hope he will continue until he has thoroughly investigated his subject.

There is no single domesticated thing so imperfectly understood as the honey-bee, and none so much the subject of whim, strange conceits, absurd maxims, and absolute nonsense, in their notions of their management. A pile of books, from first to last, has been written of their history and domestic habits; and after all, there is not one person in fifty who keeps them that knows how to manage them successfully. Many of the books which have been written about them are very good—among them Huber and Bevan rank high; while Thatcher, Weeks, and others, are so-so; yet all, according to my opinion, strangely misconceiving the best plans of increasing their numbers, and of obtaining the greatest direct profit from their labors. Many projectors have got up new-fashioned hives, full of queer devices and fancied improvements, for which they have obtained patents, and then have written a book to show the world how much better they were than anything else ever invented, which they have palmed off to an ignorant or thoughtless public; and thus each one in turn has run his brief career of popularity until the gullibility of the public became exhausted, and wound up his gimcracks as another added to the thousand and one humbugs of the day. For bee-hives alone, not less than fifty or sixty patents have been issued from the American Patent Office at Washington, not one of which is worth the journey there and back to get it registered.

The upshot of this whole matter of *Bee-ology* is, that we of the present day probably know no more of this insect than did the bee-masters of the Nile, who flourished under the dominion of the Pharaohs, or than the Chinese now, who tend their bees just as they did five thousand years ago. The fact is, that the honey-bee is a simple, unsophisticated, capricious creature; unimproved either by arts or education; working solely by *instinct*; incapable of ingenuity, and prone, at any favorable opportunity, to escape from the thralldom of man, and relapse into its original condition of barbarism and natural liberty. The bee is a denizen of the forest. Domestication is purely with it an artificial state, and a continual restraint upon its wild and roving propensities; and all the efforts of man to direct its operations, and confine its labors, or to

restrict its action through any other than the simplest contrivances will be found sadly at fault in the long run.

I have heard many wonderful stories of the doings of bees, and the success attending their management at times; but never a continuation of the story for a long series of years by a particularly artificial or complicated process. Some of them do pay very well for a time, but in the end generally blow up—bees, hives, honey and all—or rather, the hives get robbed of the honey, and the bees themselves either die, or join in robbing their own stores, or take to the woods, or some other more congenial home, where they can pursue their labors undisturbed by the *ingenuity* of man. Such, after twenty years of pretty “sharp practice,” as the lawyers say, has been my experience in bees. I have kept them in all ways, and after all methods—have been the willing victim, in a small way, of two or three remarkably clever hive-patentees—have had my hives two or three times depopulated—have started anew with fresh courage on another plan, and after exhausting all the books—for I have read a moderate wheel-barrow load of them—tossed all my gimcracks out of the window, or into the fire; and when I went back into the original plain box-plan of a single room, several years ago, I succeeded to admiration, and have since continued with more or less “good luck”—for I find bees are a wonderful creature of luck with the multitude—until the present time.

But I did not intend writing an essay on bees when I commenced this article. I leave that for Mr. Miner to do, who I find knows what he is about as well as his bees; and I presume before he gets through will tell us the entire story to any reasonable satisfaction. I only wish to say to him that he talks exactly right, as the facts will bear him out, and he has got hold of the true bee-philosophy. I simply want to ask him a question or two to get the benefit of his experience, after detailing my own mode of management. Now I keep say a dozen swarms—I never kill my bees to get their honey. It is cruel and unnecessary, besides being unprofitable. My rule is, the more hives, the more bees; the more bees the more honey. All within rule, understand, the size of hives, range of pasturage, &c. &c., as Mr. Miner directs. I have some of the chamber-hives as described in his second article, August No. of *Agriculturist*, but more of the simple box-plan of twelve inches square, as described in his July number. These last all have holes in the tops for capping on to each other, in which the bees store their surplus honey. The chamber-hives are occupied by boxes for the same purpose. I have rather preferred the simple box-plan, for a reason which I will presently give. I generally put the new or empty box under the full or working hive, and immediately stop the entrance to the latter, driving them through the empty one, which, if the other be full, and the season propitious, they at once proceed to fill. When this latter hive is filled, I take off the top or old one altogether, set it in a dark place—a dark cellar with a small light in it, through which bees that are in it escape to the other habitation, is best—and it is soon relieved of their presence. I some-

times put the empty hive on the top of the inhabited one, particularly if this latter be a young one, and thus succeed equally well in securing the honey. I last year obtained from one hive, through two applications of the empty box, over 80 pounds of the whitest and purest honey; from another about 70, and still another, about 60 pounds; and 50, 40, 30, &c., from others, without detriment to their winter stores. The season, however, was favorable. Some years the flowers are so scanty in honey as to yield the bees not enough even for their summer support, to say nothing of their winter-forage, and thus I have lost many swarms, and closed the season with a less number than I had in the spring.

Now the reason why I have preferred the simple box-plan is this; it is said that the bees, after the liberation of the young from the cell, do not throw out the case in which it was enclosed, but simply tramp, or press it down to the bottom, which, in process of time, partially fills the cell so that the young bee is restricted in its size and becomes small and feeble, and of course an imperfect bee, unable to perform its allotted task, and of consequence the young swarms ultimately die, and the hive becomes depopulated. Whereas by having a fresh and roomy comb for each, or perhaps every second year's breeding, the young are large, vigorous, and amply fitted to labor and direct their operations in the most vigorous manner. This fact seems to be pretty well settled among all thorough bee-masters; and some, to obviate the use of the old comb for breeding cells, in the month of March annually turn up their hives and cut all the comb which is accessible, for the purpose of having new breeding cells supplied. Another proof of the superiority of new comb for breeding is, that old hives frequently “run out,” as the term is, and die off, apparently of old age.

Now, if the chamber-plan be pursued, and the surplus honey for a series of years be taken through the partition above in the boxes, is there not danger of the evil occurring which I have mentioned? And if it be so, is not the open-box plan the best? I merely suggest these queries to Mr. Miner in the anticipation that he will be able to answer them from his own experience or observation, as intelligently as he has already discussed the subject, so far as he has progressed, and in every position of which I agree with him fully.

I really hope Mr. M. will pursue this interesting subject till he has exhausted it; for there is not a more agreeable or amusing object attached to rural life than the cultivation of bees; nor is there a more delicious, useful, or economical sweet than their honey. All can enjoy them with a proper knowledge of their wants and habits; and there is certainly no appendage to the cares of country life which is the subject of so much error and mismanagement, if not of arrant *humbug*, as the honey-bee.

L. F. ALLEN.

Black Rock, N. Y., April, 1847.

Look out for caterpillars and other vermine this month. Make a free use of the mop or garden-engine for destroying them.

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THE HONEY-BEE.

I OBSERVE, with great pleasure, that a very sensible writer has commenced a series of articles in the *Agriculturist* on this valuable insect, which I hope he will continue until he has thoroughly investigated his subject.

There is no single domesticated thing so imperfectly understood as the honey-bee, and none so much the subject of whim, strange conceits, absurd maxims, and absolute nonsense, in their notions of their management. A pile of books, from first to last, has been written of their history and domestic habits; and after all, there is not one person in fifty who keeps them that knows how to manage them successfully. Many of the books which have been written about them are very good—among them Huber and Bevan rank high; while Thatcher, Weeks, and others, are so-so; yet all, according to my opinion, strangely misconceiving the best plans of increasing their numbers, and of obtaining the *greatest direct profit* from their labors. Many projectors have got up new-fashioned hives, full of queer devices and fancied improvements, for which they have obtained patents, and then have written a book to show the world how much better they were than anything else ever invented, which they have palmed off to an ignorant or thoughtless public; and thus each one in turn has run his brief career of popularity until the gullibility of the public became exhausted, and wound up his gimcracks as another added to the thousand and one humbugs of the day. For bee-hives alone, not less than fifty or sixty patents have been issued from the American Patent Office at Washington, not one of which is worth the journey there and back to get it registered.

The upshot of this whole matter of *Bee-ology* is, that we of the present day probably know no more of this insect than did the bee-masters of the Nile, who flourished under the dominion of the Pharaohs, or than the Chinese now, who tend their bees just as they did five thousand years ago. The fact is, that the honey-bee is a simple, unsophisticated, capricious creature; unimproved either by arts or education; working solely by *instinct*; incapable of ingenuity, and prone, at any favorable opportunity, to escape from the thralldom of man, and relapse into its original condition of barbarism and natural liberty. The bee is a denizen of the forest. Domestication is purely with it an artificial state, and a continual restraint upon its wild and roving propensities; and all the efforts of man to direct its operations, and confine its labors, or to

restrict its action through any other than the simplest contrivances will be found sadly at fault in the long run.

I have heard many wonderful stories of the doings of bees, and the success attending their management at times; but never a continuation of the story for a long series of years by a particularly artificial or complicated process. Some of them do pay very well for a time, but in the end generally blow up—bees, hives, honey and all—or rather, the hives get robbed of the honey, and the bees themselves either die, or join in robbing their own stores, or take to the woods, or some other more congenial home, where they can pursue their labors undisturbed by the *ingenuity* of man. Such, after twenty years of pretty “sharp practice,” as the lawyers say, has been my experience in bees. I have kept them in all ways, and after all methods—have been the willing victim, in a small way, of two or three remarkably clever hive-patentees—have had my hives two or three times depopulated—have started anew with fresh courage on another plan, and after exhausting all the books—for I have read a moderate wheel-barrow load of them—tossed all my gimcracks out of the window, or into the fire; and when I went back into the original plain box-plan of a single room, several years ago, I succeeded to admiration, and have since continued with more or less “good luck”—for I find bees are a wonderful creature of luck with the multitude—until the present time.

But I did not intend writing an essay on bees when I commenced this article. I leave that for Mr. Miner to do, who I find knows what he is about as well as his bees; and I presume before he gets through will tell us the entire story to any reasonable satisfaction. I only wish to say to him that he talks exactly right, as the facts will bear him out, and he has got hold of the true bee-philosophy. I simply want to ask him a question or two to get the benefit of his experience, after detailing my own mode of management. Now I keep say a dozen swarms—I never kill my bees to get their honey. It is cruel and unnecessary, besides being unprofitable. My rule is, the more hives, the more bees; the more bees the more honey. All within rule, understand, the size of hives, range of pasturage, &c. &c., as Mr. Miner directs. I have some of the chamber-hives as described in his second article, August No. of *Agriculturist*, but more of the simple box-plan of twelve inches square, as described in his July number. These last all have holes in the tops for capping on to each other, in which the bees store their surplus honey. The chamber-hives are occupied by boxes for the same purpose. I have rather preferred the simple box-plan, for a reason which I will presently give. I generally put the new or empty box under the full or working hive, and immediately stop the entrance to the latter, driving them through the empty one, which, if the other be full, and the season propitious, they at once proceed to fill. When this latter hive is filled, I take off the top or old one altogether, set it in a dark place—a dark cellar with a small light in it, through which bees that are in it escape to the other habitation, is best—and it is soon relieved of their presence. I some-

times put the empty hive on the top of the inhabited one, particularly if this latter be a young one, and thus succeed equally well in securing the honey. I last year obtained from one hive, through two applications of the empty box, over 80 pounds of the whitest and purest honey; from another about 70, and still another, about 60 pounds; and 50, 40, 30, &c., from others, without detriment to their winter stores. The season, however, was favorable. Some years the flowers are so scanty in honey as to yield the bees not enough even for their summer support, to say nothing of their winter-forage, and thus I have lost many swarms, and closed the season with a less number than I had in the spring.

Now the reason why I have preferred the simple box-plan is this; it is said that the bees, after the liberation of the young from the cell, do not throw out the case in which it was enclosed, but simply tramp, or press it down to the bottom, which, in process of time, partially fills the cell so that the young bee is restricted in its size and becomes small and feeble, and of course an imperfect bee, unable to perform its allotted task, and of consequence the young swarms ultimately die, and the hive becomes depopulated. Whereas by having a fresh and roomy comb for each, or perhaps every second year's breeding, the young are large, vigorous, and amply fitted to labor and direct their operations in the most vigorous manner. This fact seems to be pretty well settled among all thorough bee-masters; and some, to obviate the use of the old comb for breeding cells, in the month of March annually turn up their hives and cut all the comb which is accessible, for the purpose of having new breeding cells supplied. Another proof of the superiority of new comb for breeding is, that old hives frequently “run out,” as the term is, and die off, apparently of old age.

Now, if the chamber-plan be pursued, and the surplus honey for a series of years be taken through the partition above in the boxes, is there not danger of the evil occurring which I have mentioned? And if it be so, is not the open-box plan the best? I merely suggest these queries to Mr. Miner in the anticipation that he will be able to answer them from his own experience or observation, as intelligently as he has already discussed the subject, so far as he has progressed, and in every position of which I agree with him fully.

I really hope Mr. M. will pursue this interesting subject till he has exhausted it; for there is not a more agreeable or amusing object attached to rural life than the cultivation of bees; nor is there a more delicious, useful, or economical sweet than their honey. All can enjoy them with a proper knowledge of their wants and habits; and there is certainly no appendage to the cares of country life which is the subject of so much error and mismanagement, if not of arrant *humbug*, as the honey-bee.

L. F. ALLEN.

Black Rock, N. Y., April, 1847.

Look out for caterpillars and other vermine this month. Make a free use of the mop or garden-engine for destroying them.

PRESERVATION AND APPLICATION OF MANURES.—No. 4.

THE distinguished chemist Boussingault "estimates the solid and liquid excrements of a man at 618 pounds per annum, containing 18 pounds of nitrogen—a quantity sufficient to grow 836 pounds of wheat." This would be equivalent to three barrels of flour. Now, supposing there are only ten millions of adults, producing each nitrogen sufficient for three barrels of flour; and ten millions more producing only half that quantity, we should have of this indispensable ingredient, enough to produce, annually, forty-five millions of barrels of flour, being more than two barrels for each person, large and small. If the alkalies, and other inorganic elements which are shown above to be so essential to the preservation of the fertility of our soil, should exist, only to half the extent of nitrogen in human excrements, the advantages of saving and applying them to our soil would be unspeakably great. In suggesting a plan, by which such immense benefits can be secured to the country, and which will for ever prevent our soil from deteriorating, and even reinstate that which has been, in a great degree, exhausted by improvident cultivation, I cannot do better than copy from the Report of the Commissioner of Patents, for the present year, the following extract, accompanied with the suggestion, that this plan, instead of being confined to our large cities, ought to be extended to every town, village, hamlet, and private residence. In a word, that it should be so extensive as to save all the human excrements, solid and liquid, excepting, of course, those which are deposited on cultivated fields by work hands, during their daily avocations.

"We will make a simple suggestion to the public, without charge. Insert under each aperture of a privy, drawers made of wood, iron or metal, two feet wide, two feet deep, and any required length, with handles at each end, so that they can be as easily drawn out and handled as those of a desk. Put into these drawers peat, mixed with a little plaster of Paris or charcoal-dust, mixed with plaster, to the depth of six inches or a foot. Thus arranged, not the slightest unpleasant smell would arise from the privy; and every week or fortnight carts, with light boxes in them, should call at the house, and the drawers be emptied into them. In this way the yards would be purified of a shocking nuisance, and vast quantities of poudrette could be weekly manufactured, for which any company could well afford to pay the city of New York \$100,000 per annum."

For this highly useful suggestion, the Commissioner of Patents gives credit to the American Agriculturist, Volume 4th, page 116.

Where peat is not to be had, charcoal-dust and plaster of Paris, or either of them, may, perhaps, answer the purpose of fixing the ammonia of the excrements. But this is a matter that will soon be ascertained by experience, and the aid of a good chemist. The drawers under the privies must of course be water-tight, so that no part of the liquid excrements may be lost, for these are the most valuable parts of them.

If the great city of New York should take the lead, in the introduction of a practice which is des-

tinued to be of such immense benefit to the country, she will be entitled to the gratitude of the whole nation. She will, at the same time that she is rendering an immense service to the agricultural interest, free herself from a most horrid nuisance, under which, in common with all other crowded cities, she is daily suffering the most serious evils. Next to the manures, which may be derived from human excrements, are, perhaps, ashes. These contain, not only alkalies in large quantities, but also most of the mineral elements, which enter into the composition of every description of plants. These are the very substances, which, as Liebig has abundantly shown, are by far the most important ingredients in all good soils. Other elements, such as oxygen, hydrogen, carbon, and nitrogen, are necessary, but these, except the latter, are abundantly supplied from the atmosphere; and it has been shown above, that the deficiency in the supply of nitrogen from the atmosphere can be more than compensated by a careful saving of human excrements and the manufacture of them into poudrette. But the supplying of our soil with the alkalies, and other mineral elements, which exist so abundantly in the ashes of all kinds of wood and plants, is an object of great importance, and one which demands the utmost care and circumspection. Not only should the ashes be saved, which result from the wood consumed as fuel, but also all that result from the burning of logs, brush, &c., in clearing plantations and clearing up woodland pastures. If not convenient to haul and spread these ashes immediately upon fields, which require to be furnished with alkalies and other mineral elements, they should be placed under cover, otherwise the rains, snows, and dews will dissolve the alkalies, combined with the ashes, and thus these highly useful substances will be carried down into the earth and all lost to the purposes of agriculture.

Ashes are frequently *leached* for the purpose of making potash, which is used in large quantities in manufacturing soap and glass. Soda may be applied to the purpose of making soap and glass as well as potash. And as this substance can easily be procured from sea-water, or common salt, Liebig observes, that by substituting it for potash, in making soap and glass, "it enables us to return to our fields all their potash—a most valuable and important manure—in the form of ashes." Leached ashes, though deprived of their potash, still contain several mineral elements, which render them very valuable for manure, and they should be carefully applied to soils deficient in such elements.

Crushed or ground bones are also a very valuable manure, particularly for grain crops. Liebig says, "one pound of bones contains as much phosphoric acid as a hundred weight of grain." Every pound of bone-dust, applied to a soil, is therefore equivalent to the production of a bushel and two thirds of wheat. So valuable a manure and so easily applied ought not to be neglected. Phosphoric acid readily combines with the alkalies, soda and potash; and the alkaline earths, lime and magnesia, forming phosphates. Liebig in the 16th of the letters above referred to, says, "My recent researches into the constituent ingredients of our cultivated fields have led me to the conclusion that

of all the elements furnished to plants by the soil, and ministering to their nourishment, the phosphate of lime, or, rather, the phosphates generally, must be regarded as the most important." Hence the importance of furnishing soils with alkalis, alkaline earths, and human urine, which abounds in sulphate of potash and soda; and phosphates of soda, ammonia, magnesia, and lime. On the subject of furnishing soils with the foregoing inorganic substances and of their great value, in rendering them productive, see Beatty on Agriculture, pp. 225—230

Lime is one of the most valuable alkaline earths, and the means of producing it, in limestone soils, is almost unlimited. It not only serves as a substitute, where other alkalis are deficient, but in its caustic state is the means of opening stiff clay-soils, and setting free their alkalis. Lime, judiciously applied, is therefore of great advantage to soils deficient in alkalis, and other mineral elements.

From the views already presented, it will be readily perceived why the shell-marls of Virginia and other Atlantic states are found to be such valuable manures. But I have already occupied too much space, and will conclude, by mentioning the fact, that Johnston, the celebrated agricultural chemist, "refers to a *very fertile soil*, containing less than a *half per cent.* of *organized substances*, but with a full supply of the proper *inorganic substances*; and to two other soils, having more than *twenty-five per cent.* of *organized substances*, which were barren and unfruitful, because of an almost total deficiency of some of the most important *inorganic matters*, to wit, lime, magnesia, potash, soda, phosphoric acid, sulphuric acid, and chlorine." Nothing can more strongly show the importance of *inorganic elements* in soils, to render them fertile. A. BEATTY.

Prospect Hill, Ky., Dec., 1846.

PROPOSED PLAN FOR DRAINING THE MISSISSIPPI LANDS.

In reading the article entitled Letters from the South, in the March No. of the Agriculturist, I observe some suggestions are thrown out by the writer on the practicability of draining the alluvial lands on the Mississippi, with the view of rendering them fit for tillage. As this appears to be a subject of the utmost importance, in point of the economy and future prosperity of Louisiana and Mississippi, the following plan is offered, which, if not too expensive, it is believed, would prove feasible, and these lands might readily be reduced to a proper condition for the cultivation of cotton, rice, sugar-cane, Indian corn, and many other crops.

It appears that all along the banks of the Mississippi, the land is highest, while the portion remote from them gradually subsides into irreclaimable swamps, and frequently into navigable lakes or lagoons, which communicate with the main stream by numerous smaller channels or bayous; that the natural elevation of the banks is not sufficient to prevent an overflow by floods, unless secured by artificial embankments, usually known on this river by the name of *levées*; and that these embankments often, though imperfectly, effect the object in view, as the porosity of the soil admits the passage of the water in consequence of its increased height

above the adjoining lands, and proves fatal to the success of the crops.

The plan I would propose, to obviate these difficulties, would be, first, to construct entirely around the tract intended to be reclaimed (say two square miles), a substantial dike of a sufficient strength, breadth, and height, to resist the flow of the highest floods. This, I conceive, can be done by forming a series of ditches or channels, as indicated in the adjoining figure, all dug to a uniform level, with the

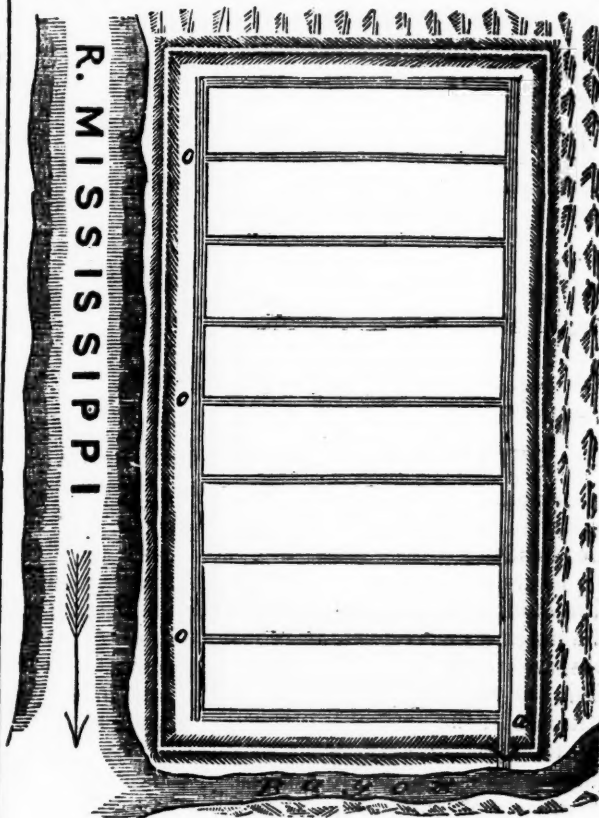


FIGURE 30.

ones outermost of sufficient widths to furnish the materials for making the dykes. The last named ditches should be situated at least thirty feet from the inner slopes of the embankments, and all the ditches, as well as the dykes, should slope on their sides, one and a half to one, in order to prevent sliding or caving away. At the bottom of the outer slope, on the *berm*, or space between the embankment and the river-brink, willows and other aquatic shrubs may be encouraged to grow, to protect the works from further encroachments from floods.

In order to dispose of the water that may be accumulated in the ditches, from rains, springs, or percolation, a self-acting flood-gate may be constructed at a convenient point for discharge, as at *a*, which will always keep open so long as the surface of the river is lower than that of the ditches; but as soon as the river rises above the surface of the water in the ditches, the flood-gate will close of its own accord, and so continue until the river again falls to its former level. During the period in which the flood-gates are closed, it is obvious that whatever water may accumulate in the ditches by rains or other causes, must be removed by mechanical means. This may be done in various

ways; but the mode preferable to adopt, which is practicable, would be to employ the current of the river for a motive power, and this too, without resorting to pumps and the ordinary machines for raising water, which require constant attention and are always subject to repairs. The mode referred to is, to place the ends of a series of tubes in the ditches, as at *c, o, o*, with the other ends communicating with certain contrivances in the river to be acted upon by the current, and by that means the space inclosed may be completely drained. As these contrivances cannot be clearly understood without the aid of models, or several diagrams at least, a further description would seem to be foreign to the present purpose. At a future time, however, should these few hints awaken attention to the subject, if called upon by any one interested in an enterprise of the kind, I would be willing further to enlighten them on these points. B.

The writer above is personally known to us, and has had considerable experience in draining on a large scale. We are not fully acquainted with his mode of discharging water by means of a current, but trust, if called upon, as he suggests, his plan would be fully explained.

CULTURE OF THE PEACH-TREE.

In perusing the January No., Vol. 6, of the *Agriculturist*, my attention was soon drawn to the article headed "Cultivation of Fruit-trees" over the signature of "An Amateur," asking various questions touching their practical management; and in the notes which immediately followed, allow me to observe, that I, for one, was not only perfectly satisfied, but very agreeably entertained and much instructed by the very able and scientific, yet practical treatment of the various interrogatories. Such plain information is genuine coin for the farmer, and if he does not avail himself of it, why who is to blame? The truth is, we have a country, a soil, and a climate adapted to the rapid and healthy growth of a great variety of fruits; and by a little well-directed care and management, through the aid of the various channels of information within the reach of all, there is open a great field for enterprise and usefulness. But if we do not avail ourselves of these many privileges, again I say, who is at fault? Echo says *who*? In the last clause of the article above alluded to, I was not a little amused at the delicate hit of the writer about the management of the "peach-tree." My sympathies were immediately enlisted, and though, as the writer very timely observes, it is a subject somewhat "prolific of disputes," yet, I have thought it might not be out of place for me to cast in the mite I have collected from my experience and observation.

On the culture of the peach, much has been said and very much written. I am well aware it is a subject fraught with endless theories. Much effort and enterprise have been expended in its cultivation, and many experiments are continually being made to stay the march of its known foes. But in experimenting, consider it not out of place for me here to observe, that success in one instance will not always insure success in another, as cases may

only be *apparently* similar, a difference of soil and the age of the tree having a bearing upon the effect of the experiment. Thus one tree thoroughly purged of the "varmints" may thrive rapidly, and bear fruit a number of years; another tree may be doctored of the worms and soon after perish with the *yellow*s; and no apparent difference in the two at the time of the application. Experiments in the cultivation of the peach have, however, been sufficiently extensive and varied to demonstrate its entire practicability. To illustrate this position is my present object.

And first in order is the propagation of healthy stocks. To obtain these *healthy* and *sound*, is the grand desideratum. The popular method, in New Jersey, is the following:—We prefer to have pits from Virginia, as it is generally conceded they are comparatively the most healthy. They are deposited in the fall of the year in beds of fine soil, covered about three or four inches over with fine mould, where they remain until spring, when, as they sprout, they are transferred to the nursery, and planted out in rows four feet apart and about eight or ten inches in the rows. A full acre planted in this way will hold about 13,000 trees. Such as do not sprout of themselves may either be cracked or left in the bed another year. They are budded the same season in August or September with choice fruit, care being taken to select the buds from trees that have every appearance of being *perfectly healthy*. It is calculated this method will secure, as far as the judgment of man is concerned, sound and healthy trees for the orchard. But it is not common for disease in the peach-tree to show itself so young, as it does when removed from the nursery, being generally then but two years old. It is in the orchard and garden that we naturally expect the first symptoms of disease. It is here that the most skilful cultivator is baffled in his efforts to mature this most luscious fruit. It is the two prominent diseases noticed above, the "worms" and the "yellows," of which I propose next to treat.

My own experience has never yet taught me at what precise time to look for the first attack of the peach-borer. The presence of the worm is known by a peculiar jelly or gum oozing from the trunk of the tree near the surface of the ground, the favored spot for its operations. It is very often found the first season of planting out for bearing, and not unfrequently in the nursery. An idea has here occurred to me, I think very important to notice, lest cultivators confound or unite the two diseases, the worms and the yellows. My practice has convinced me that they are entirely separate and distinct. I have known a tree to die of the yellows with not a sign or mark of a worm at the root, and again others have been destroyed by the worm which were entirely free from any appearance of the yellows. I have tried experiment after experiment, and am still ignorant of the use of any substance, sufficiently economical to become of general use, that can be *positively* relied upon as a *sure* and *certain* preventive. I have tried salt, tar, tan-bark, charcoal, fine hard coal, ashes, lime, soap, straw, etc., etc. Now the use of ashes, coal, lime, and the like, are of *some* value, as from their offensive properties they are supposed to be obnoxious to

the worm. But when once it has carved its way through, and found a resting place beneath the surface of the bark, the application of any of the above-named substances seems entirely useless, as they cannot reach or in any way affect the worm. When ashes, lime, etc., is used, I would recommend from one to eight to be thrown out at the base of the tree, and on the surface of the earth, entirely surrounding the body. A tree would not, of course, bear the use of as much salt. Straw bound around the tree with wisps of the same extending some four inches below, and eight inches above the surface, might assist for some little time in keeping off the insect; but the straw would soon decay, and the process would be considered too tedious to be often renewed in large orchards. But still bear in mind, none of these substances are to be invariably relied on as a positive preventative. Like many other good things, the peach-tree not only deserves but requires some attention. Let the tree be carefully watched, and the worm often searched for. Clear away the dirt, scrape the bark clean, dig out the "varmint," and cut off his head. Then as you replace the dirt, throw around the tree, as before directed, some ashes, lime, or fine charcoal. As a moderate use of these is not injurious to the tree, and being somewhat nauseous to the worm, they may assist in preserving the tree for a time. A small mound of earth heaped about the body of the tree, at the time of setting out, may be found useful, as at every hoeing of the ground some little may be drawn away, and thus expose directly the spot most likely to be attacked. One other plan I would only suggest, having never tried it. Trees have often been noticed to thrive and bear well when growing in a very stony hedge-row, or close alongside a rough stone fence. This I have seen in orchards where the ground is very stony, and we have thousands of such acres in Jersey: a heap of stones about the body of the tree might answer a very good purpose. I hope soon to see it effectually tried. A heap of stones is indeed quite indefinite, but one's own judgment will dictate the proper quantity; when stones are very plenty I would have them piled neatly about the tree, say three feet in diameter and one and a half or two feet in height. If this should succeed, a double purpose would be gained, as all after-culture might be with the plough and harrow, the hoe or spade being dispensed with.

As for the yellows, I have never known, read, or heard of a remedy for them. My plan with the yellows is as with the knots on plum-trees. At the very first appearance I would utterly annihilate and consume by fire every vestige of them. A tree affected with the disease generally bears tasteless and insipid fruit. Lose no time, but dig up and burn up the whole tree. I have known the yellows to occur in almost every imaginable location, in rich garden soil and on poor mountain-land, in orchards beautifully cultivated, and in orchards unwisely neglected. I have known trees clothed with a beautiful, very healthy looking dark green foliage, growing very thrifty, yet showing unerring signs of disease. I consider it of no practical importance to know whether or not it is "contagious."

The above advice will be found, I think, practicable, as due calculation can be made in supplying trees for a few to be lost every year. Indeed, the trees are so easily procured, and so very cheap (\$6 per hundred in this part of Jersey), I always think it decidedly the best plan, if one would secure a constant succession of fruit-trees, to set out some trees every year. The best orchards in West Jersey are kept in constant cultivation until the bearing year, when buckwheat may be sown with advantage over the whole orchard, to save the labor of hoeing and working down the weeds. This answers well to keep the orchard clean of weeds. In gathering the fruit, the buckwheat is more or less trampled down; but when the peach-harvest is over with, if there is any buckwheat ripe and worth cutting let it be gathered, if you only get enough to seed it again in the same way another season. There will be so much saved, as you will have gained the purpose for which it was originally sowed. W. D.

Morris Co., N. J., March, 1847.

LETTERS FROM THE SOUTH.—No. 7.

New Orleans.—There are two prominent features of this place that unsettle every preconceived opinion of those who visit it. The first is an apparent change in the points of compass, as the river, whose general course is south, flows past the city nearly due north. This confusion is "worse confounded" in consequence of a whirl in the current at the centre of the crescent, which makes a vast eddy the whole length of the steamboat landing, and sends the unfastened sterns of the moored craft directly up stream. The second is owing to the peculiar conformation of the surface, previously mentioned in speaking of the delta of this region, and consists in the declination of the streets from the bank of the river to their farthest extremities. What is everywhere else the foot of the street, is here the head or highest elevation.

No part of the surface occupied as the city, varies three feet. The general elevation is but five feet above that of the gulf. Throughout the spring and the first two summer months, the water is usually higher than the general surface, and for some weeks past, has been about four feet above it. Nothing short of a continuous levée, on either side, from near the gulf to the high lands above, would prevent a general inundation. It is a fearful consideration, that millions of acres of highly cultivated land, and tens of millions of property, and a vast population, are all at the mercy of this terrific stream, whose waters are now rushing along on their downward course to the ocean, within a few inches of the utmost height of the embankment. Immense devastation is sometimes occasioned by a *crévasse* or break in the levée; but this is so well secured that it seldom occurs except in the highest stage of water.

It is a question which the future only can solve, how far this artificial restraint of the waters will effect the character of the stream. M. De Prouy asserts, that since the Adige and the Po of Italy have been shut in by embankments, the deposits on the bottom have raised their surfaces far above the intervening territory, and that the water in the

latter is now above the roofs of the houses in Ferrara. He suggests as a remedy for the constantly increasing elevation, additional outlets from the stream to the Mediterranean, by artificial excavations at remote distances from their mouths. How far even this would tend to remedy the evil, may justly be considered, at best, as only problematical. Philosophical speculation or even experience may busy itself as to the future; but the vast elements of this mighty stream (the largest on the globe), the rolling flood and the solid elements which it holds in suspension,* governed by laws over which man can have no control, will probably for ever defy any successful interference from his puny efforts.

One is constantly reminded of the isolated position of this city and the surrounding country, and although with an immeasurably larger range, it is yet almost as completely invested by water as Venice, the queen of the Adriatic. A single road leading past the city on the banks of the river, is the only one admitting egress from it, and even this is little used. Almost the entire travelling and business is by water-craft. There is a pleasant drive of a few miles in the suburbs; on the shell road and Metairie ridge, but all else is confined to the ordinary streets. Two canals, whose surface is from 6 to 25 inches below the general level, and one railroad lead from the city to lake Ponchartrain, about 6 miles. The former are inlets for quite a little fleet of schooners and other small craft, that coast along the lakes and Gulf, and are principally engaged in bringing lumber, fuel, and market supplies. One railroad extends to Carrollton, a pleasant village 6 miles above, and still another, the Mexican Gulf, runs eastwardly to lake Borgne. Most of the Mobile and some other boats make their landing in lake Ponchartrain, near the outlets of the Canals, where from the gradually receding shore, the land and water are with difficulty brought together by an interminable projection of wharf on one side, and an equally extended excavation on the other.

The centre wharf, which is over half a mile in length by 500 to 600 feet wide, is occupied exclusively for the river steamboats, from 40 to 60 of which are constantly moored there, receiving or delivering freight and passengers. First above these, lie the flat boats in compact acres; then the small gulf or coasting schooners; and still further above, a long line of ships and Atlantic vessels, a few small craft, picayune wherries, market sailboats, &c., flank the steamboats below, which are succeeded by the largest class of vessels as far as the eye can reach. Near the centre, these lie three or four deep and at touching distance; but gradually become less compact as the wings expand, till four or five miles of wharf are occupied with the floating craft which have been called hither at the beck of this young commercial giant.

The city proper is divided into three municipalities. The first occupies the centre and comprises the ancient city; above it is the second, and below, the third. Above the second lie Lafayette, Freeport,

Bouligny, and Carrollton, all destined hereafter to be embraced in the extending area of the metropolis. Each municipality has its own aldermen, recorder, and other local officers, and levies and expends its own taxes; but all are combined under a federal head, for the exercise of more general powers, the appointment of a police, &c. The creation of distinct and separate legislative and executive powers was effected in 1836, to enable its citizens of the second, who are mostly from the northern and middle states, to carry out their schemes for improvement, which were frustrated by the more stationary views of the original occupants. Within twenty years, and after the first was densely populated and substantially built up, most of the second municipality was a cane-brake and marsh. Now it has by far the finest buildings in the city. Within it are the St. Charles, the Verandah, and several other hotels; nearly all the protestant churches; numerous good *public schools*; the greater part of the cotton presses; the gas and water works, &c., &c.; and much the largest proportion of the wholesale trade, together with the steamboat and vessel agencies; there also are conducted the sugar and grain transactions, and the banking operations.*

The modern brick buildings, both stores and dwellings, are similar to those of northern cities, except that there are neither cellars nor basements; and there is scarcely a house of two or more stories, without balconies on one or more sides of the second and sometimes third floors. More than one-half the dwellings are of one story, with high, peaked roofs, dormer windows, and far projecting roofs, the latter frequently supported on slender pillars, and enclosing a porch with light railing or lattice-work. They have a decidedly foreign aspect; and with the trailing ivy, the Cherokee rose, or other runners which sometimes clamber over them 30 feet from the ground, the better class of these cottages have an appearance that equally gratifies the taste and the requirements of a sultry clime.

There are no extensive ornamental grounds in this vicinity; but much attention has been bestowed on many of the smaller enclosures, which sometimes embrace an entire square. A general style consists in a hedge of the green-leaved orange, 20 feet in height, covered till December with its golden fruits, or if the sour orange be used, the fruit is perpetually on the trees. The crape myrtle is sometimes substituted for the orange, and is somewhat taller and more bushy. The myrtle is generally interlaced with the Cherokee rose; and not unfrequently, the latter is the exclusive substitute for each of the others. Within, are the magnolia, the arbor vitæ, or other evergreens of the fir-tribe; the banana and spiked palmetto; the luxuriant tea and other roses, and numerous varieties of the floral

* Col. Girault asserts, that a point on the west side of the Mississippi, above Natchez, had been extended one-fourth of a mile in 30 years. Within about the same period, one-tenth of a mile in width, has been deposited opposite the steamboat landing at New Orleans

* An error has been recently detected in the census of this place, as taken for 1840. It then stood in round numbers, at 102,000, of which the 2d municipality furnished a little over 20,600 and the 1st and 3d about 78,000. Now the 2d has about 43,000 and both the others 52,000! The former has nearly doubled, while the two latter have apparently lost one-third each, and that, too, while they have been supposed to be on the increase. Some of the worthy schepens and burgomasters can only account for this loss, from the fact that, in the former census, the returns were paid for at so much a head, and that more citizens were hunted up under this improved system. But the result, however explained, shows conclusively the rapid growth of this portion of the city

family, whose foliage and blossoms are almost perennial. Bricks are generally used for the walls, and sometimes to circumscribe the luxuriant borders to a stiff, unmeaning piece of tasteless or grotesque patchwork; but the use of the small white shells, which abound on the banks of the numerous surrounding bayous and lakes, gives a tasteful and cleanly aspect to the borders which is not surpassed by the best gravel. The *Morus multicaulis* is much used here as an ornamental tree. It grows luxuriantly, and with a graceful top. It is among the earliest of the trees of this climate. The leaves made their appearance in February, and are now fully expanded. The sycamore is much used in the public squares, and appears to flourish. A few willows are to be found, but no elms. In place of these, where the grounds are sufficiently large, the *live oak* rears its magnificent crest; and with its symmetrical outlines, its frequently pendent limbs, and the long festoons of silver moss, which almost sweep the ground and are swayed by every breeze, it fully makes up for the absence of both the others. These are sometimes of great size. I measured one in the suburbs, whose limbs shot out horizontally, 8

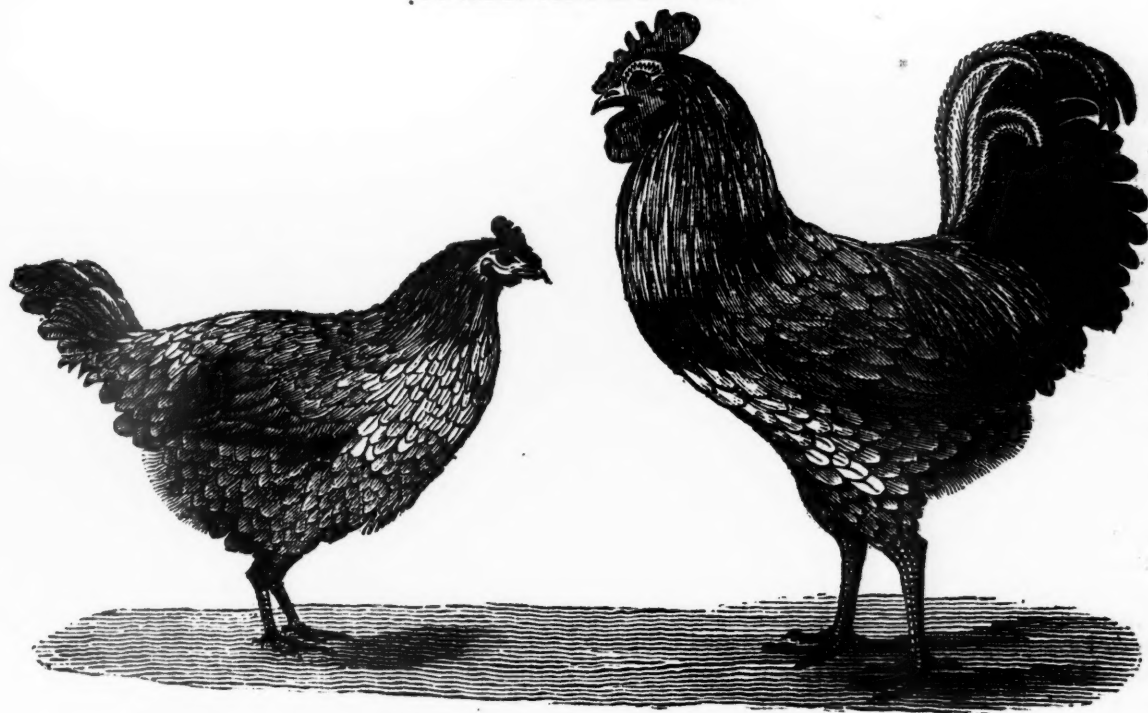
feet above the ground, to the distance of 40 feet from the trunk in every direction, the latter being about 5 feet diameter, and the apex of the flattened regular dome of branches apparently not exceeding 50 feet.

The population of the city, like the delta which it occupies, is drawn from remote and diversified sources, and is the subject of continual transition and change. There is a large substratum of the ebony African, with every shade of griffe (or brown), mulatto and quadroon. The Creoles (natives of this region), mostly descended from the French, but many from the Spaniards, the Germans, and the Americans, are numerous; as are also the emigrants from Europe. But by far the largest proportion of professional and business men are natives of the Atlantic states; and it is to the intelligence, enterprise and activity of these, that New Orleans is mainly indebted for the rapid advance she is making in population and wealth. But I may not longer take up the columns of the *Agriculturist* with a subject not purely agricultural, and shall turn my attention to the plantations in this vicinity in my next.

R. L. ALLEN.

New Orleans, March 20, 1847.

COCHIN-CHINA FOWLS.



COCHIN-CHINA FOWLS.—FIG. 31.

THE above are said to be very faithful portraits of the Cochin-China fowls recently introduced into Great Britain by Queen Victoria. They are the largest and most magnificent of the domestic breed known. They were supposed at first to belong to the family of Bustards, but it is now settled that they are genuine poultry. The cocks of this breed, well fattened, weigh alive from 12 to 15 lbs.; hens, from 9 to 12 lbs. Their general color, according to Richardson, is a rich, glossy brown, or deep bay; on the breast is a marking of a blackish color, and of the shape of a horse-shoe; the comb is of a medium size, serrated, but not deeply so, and the wattles are double. Besides their gigantic size,

however, these fowl possess other distinctive characteristics, among which may be enumerated the following:—the disposition of the feathers on the back of the cock's neck is *reversed*, these being turned upwards; the wing is jointed, so that the posterior half can, at pleasure, be doubled up, and brought forward between the anterior half and the body.

"I am not aware," he adds, "whether trial has, as yet, been made of the flesh; but from the white color, and delicate appearance of the skin, I feel confident that they would afford a luxurious and a princely dish. The eggs laid by the hen of this variety are said to be large, of a chocolate-color, and to possess a very

delicate flavor. One of the hens, Bessy, exhibited by Her Majesty, laid 94 eggs in 103 days."

The Cochinchina cock has been crossed with the Dorking hen, and the produce is said to be superb. Pullets of this cross have been known to weigh 10 lbs. each at six months old. If the above portraits be correct, we should be afraid the cross would add too great a length of leg to the Dorking, and we very much doubt whether the best specimens could be improved by it. But there are poultry fanciers who will have size let the shape and other qualities of the birds be as they may. For our own part, we much prefer medium-sized poultry as most delicate and profitable.

We are not aware that any genuine Cochinchina fowls have been introduced into this country. A Mr. Nolan has recently imported them into Ireland, and the Queen of England has occasionally made presents of them among her noblemen. We do not know how they can be procured except direct from Cochinchina; and we must say to our friends in advance, that we cannot undertake their importation from any quarter. We here give them all the information we have upon this interesting subject.

NECESSITY OF INDUSTRY AND FIXED HABITS OF THE PLANTER.

It is a very common saying, that "an overseer understands better the business of his employer, than he does himself." If such be true, and the planter can afford it, he had best sell his property and live on the interest. In cases of that kind, it shows clearly two things; one is, that such a planter dislikes his business and will not try to learn its duties, or the other is, he is either sadly deficient in mind or energy. I do not mean by this that an overseer is incompetent to the task of judicious management; far from it, as I have seen some excellent planters and managers; but what I mean is this, that all planters should be fully competent to instruct others when necessary, and never to be at a loss at any time on his own estates. Again, the duties of a planter embrace a much wider scope than that of an overseer. One must plan for the other to execute, and with the one and the other, success should be the result. There is no duty whatever pertaining to the plantation, from the lowest to the highest, but what a good planter should understand, and be able to have properly managed or executed if necessary. He should feel at home at all times.

If a man is true to his interest, policy dictates that he should be permanently located, at an early period of his life. The unsettled man may be compared to the "rolling stone that gathers no moss." Hence the necessity of understanding thoroughly the proper mode of cultivation and the management of lands. Generally speaking the migrating man belongs to that class of planters who are careless of the soil, exhaust it for present crops, without an eye to the future. His lands are heavily taxed by injudicious management, and before he has secured the value of the labor bestowed in clearing them, he is left with a crippled plantation yielding but a poor crop. To move in quest of the virgin soil again, is but incurring heavy expenses, hard labor, loss of time, deprivations innumerable, and parting with many things, apparently of no value,

until want demands them. Such men are enemies particularly to their children, for they are always in advance of civilization, and the inheritance to be hoped for is property without that knowledge which renders the property more useful. The settled and contented man is by far the most prosperous in the long run; if he makes not rapidly, it is sure and safe. His calculations are based upon experience; familiar with all things around him, his path is plain, his land-marks are established, his confidence is sure, all whom he meets are known, his children are provided for, and their education regarded. How different is the wanderer, who lives and dies among strangers, and in a strange land! Such are the considerations which should govern a planter, in attending to the duties of his occupation; hence the necessity of industry and a proper knowledge of his business. J. H. D.

Barbour Co., Ala., Feb., 1847.

A TRAVELLING CIDER-MILL.

As you wish the farmers to send in their facts, I will give you a new plan for making cider. I have invented a *Travelling Cider-Mill and Press*, so constructed that it can be moved about from one farm to another by two pair of horses, or of oxen. My neighbors laughed at me when I told them what I was about, and said it would not do. I told them that was my business, not theirs,—so when the mill was finished and well at work, grinding the apples and pressing out the cider at the same time, and this too in a perfect manner, they came flocking in numbers, not a few, as much pleased as though I had been grinding with the "elephant."

Last fall this mill travelled about from orchard to orchard, and made 237 barrels of cider, sometimes making as many as thirteen barrels a day. This shows, as a certain *jumper* said, "some things can be done as well as others." The mill and press can be made in this place for about \$20. If you want a description of my mill, I will give it to you some other time. JOHN WILSON.

Union Mills, Erie Co., Pa., March, 1847.

A REMEDY FOR DISEASED PEACH-TREES.—Among all the remedies for the prevention and cure of the diseases of the peach-tree, which have been recommended, there is one that I do not recollect to have seen mentioned, and, as far as my observation extends, is of more value than all the rest put together. That is chamber-lye or urine. If those who have peach-trees will save this article and put it on the roots of the trees, instead of throwing it in the sink, I can assure them that they will not be troubled with worms or the yellows, but will have healthy trees and plenty of peaches. M.

New York, March 24, 1847.

TO DESTROY WEEDS IN GRAVEL-WALKS.—Of all the excellent recipes for keeping pavements and garden-walks free from grass and weeds, none is so effectual as to hire the cook to pour upon them every morning the water in which the eggs for breakfast have been boiled; but the virtue is entirely lost if it be not done the instant the skillet is taken from the fire—that is, the water must be boiling-hot.

REVIEW OF THE NOVEMBER AND DECEMBER NOS. OF THE AGRICULTURIST.

Noxious Effects of Gases of Brick-Kilns on Fruits and Vegetation.—Now, it appears to me, that this matter all lies in a nut-shell. "Everybody knows" that the gas arising from burning coal is injurious, but is it so from a wood-fire? Then if the kilns noticed by Dr. Underhill were burnt with coal, which I presume they were, the story is all told—for the gas is that arising from the sulphur burning in the coal and not from burnt clay.

British and Irish Flax-Culture.—Its history, etc., but nothing of *American flax-culture*. For that is among the unknown things. And yet Solomon in all his glory could not convince me that it would not afford more profit to the culturist, either for seed or lint, than I have shown that the culture of wheat affords. I am satisfied from personal observation, that a vast portion of the virgin-soil of Ohio, Indiana, Illinois, Wisconsin, Iowa, and Missouri, is well adapted to the growth of flax; and yet how little of it is grown. The reason, it is said, is, that the price is too low. And yet in this No. of the *Agriculturist*, now under review, flax is quoted at seven and eight cents a pound, and flour at three cents.

It is wondrous strange if flour can be delivered in New York City for less than one-half the price per pound of flax.

Preservation of Potatoes.—I beg leave to call the attention of the American Agricultural Association to this article, and that they take immediate steps to test its truth, and publish the result, as it is of vast importance if true.

"Burrall's Corn-Sheller."—Is this the last improvement? For really they come so thick that I am in the condition of the drunken man that thought his bed was going round him, and did not know when to jump on. At last when he thought he was "all right" he jumped and fell into the fire and burnt his fingers. And so it is of these machines. The inventive genius of Yankeeedom is so great, that these machines come and go so fast that I don't know when to jump on, for fear I might burn my fingers.

Popular Errors, No. 2.—Shrinking and Swelling of Meat in the Pot.—And do you suppose that this error, that was so popular in your youth, is now a thing of auld lang syne? I assure you it is as popular now as it was before the commencement of this "age of improvement." And although you and I may deny the moon, there are others who will as religiously adhere to it as witch-ridden mortals do to their preventive horse-shoes.

Treatment of Mules by Doct. Phillips is like all of the Doctor's writings—just like himself—busy, bustling—full of life and vivacity. But I am glad to hear, Doctor, that you have less colic than at Brandon Springs. No doubt that your systematic management of mules is the true cause of your success; but more particularly is it owing to the fact of your giving your own *personal* attention to such "small matters," which saves you the expense and vexation of the enormous annual loss of this useful animal in your own "glorious south."

Gardening, No. 9.—The interest of these arti-

cles of Mr. Talbot is still kept up, and if any of the subscribers of the *Agriculturist* have not yet read them, I advise them to make use of these long winter evenings for that purpose.

The Enemies of Bees.—Mr. Miner in this article promises in his next to teach us the philosophy of keeping the moths out of our hives. Well, I long to see it. I have been much pleased with these articles, and, on account of their general good quality, refrained from pointing out some minor errors. I am entirely sceptical upon the subject of ever preventing the ravages of these dreaded enemies of the bee-breeder. While upon this subject, I have been told that there are no honey-bees in Oregon. Who knows? And who can tell the best method of getting them there?

A Ready Rule for Farmers, made readier.—A "quarter of wheat" is an English measure of eight standard bushels—so if you see wheat quoted at 56 shillings it is 7 shillings a bushel. A shilling is 22½ cents; multiply by 7 and you have \$1.57½ per bushel.

In Kentucky, corn is measured by the barrel, which is five bushels of shelled corn. At New Orleans, a barrel of corn is a flour-barrel full of ears. At Chicago, lime is sold by the barrel, and measured in the smallest sized cask of that name that will pass muster. A barrel of flour is seven quarters of a gross hundred (112 lbs.) which is the reason of its being of the odd measure of 196 lbs. A barrel of tar is 20 gallons, while a barrel of gunpowder is only a small keg holding 25 lbs., and that reminds me of cotton, a *bale* of which is 400 lbs., no matter in what sized bundles it may be sent to market.

Proposed Safety Lamp.—Allow me, my dear Doctor, to publicly thank you for calling the attention of cotton-planters, or rather those of our Yankee friends who do up all such little *chores* for you, to the great advantage of having a wire-gauze safety-lamp.

The only reason why they have not been manufactured in this country is, because there has been no demand for them. But let it once be known that every cotton-planter would buy them, as well as every factor, carrier, packer, or handler of this combustible article, and I will engage that the market will be supplied. It appears to me that they should also be used in every stable, and in the manufactories where the breaking of a glass lantern often endangers hundreds of thousands of dollars' worth of property.

Dr. Phillips speaks of a square shape, with a door strongly fastened, &c., but I suggest a barrel shape, and a heavy bottom screwed in with a coarse screw.

American Wine.—Will that happy day ever come when we shall cease the folly of importing the "drugged pernicious stuff" which is too often, we may say almost generally, imported for the use of the sick, and make use of a pure home-made wine? I feel proud to call Mr. Longworth an old friend of mine, just for what he has done to encourage and foster the growth of grapes in our country.

It is delightful to take a ramble around among the hills at Cincinnati, to see how the energy of

this one man has caused the wild and rugged hill sides to bring forth an abundance of this rich fruit. So long as wine must and will be made use of, I would prefer to see that raised from our own soil only used. As an article of medicine it is undoubtedly highly beneficial.

The Potatoe Disease.—Enough said. "All signs fail in a dry time." Chronicle facts, but no more crude and useless speculations and recipes.

Entomology, No. 1.—Lest some of your little readers won't look in the dictionary to learn the meaning of that kind of *ology*, allow me to tell them that it is the history of insects, and I have no doubt but Mr. Talbot will make a most interesting series of chapters well worthy the perusal of old and young. The United States seem to be the home of bugs and all manner of creeping things, that are an exceeding great pest to American farmers; and they are rather on the increase, and give evidence every season of the correctness of the theory of the author of *Vestiges of Creation*, that new kinds are constantly occurring. I beg friend Talbot to condense as much as possible—not in the length of his articles, but in individual descriptions, for I am anxious for him to give a slight description of a very numerous family, without tiring his readers. He can do it.

The Old Lady's Diary.—I have heretofore given my commendation to these excellent and quaintly written articles. "May they live a thousand years." The two recipes in this article are worth more than a year's subscription to this paper, to say nothing of the directions how to get rid of the fleas—to which add some of my diet for dogs, and it will help the matter, for then there will be less fleas. To the old lady's recipe for making "cream cheese," let me add my old Pennsylvania wife's recipe for making *soft cheese*—in Dutch, *Smear Case*.—Take a pan of *lobbered* milk and heat it gently, about blood warm, and the whey and curd will separate; pour it in a strainer and hang it up until well drained; then break up the lump and rub it between the hands quite fine and add half a pint of cream to a soup-plate full, and it is cream cheese in our every day form. Try it; I guess you will like it; it is cheap.

Allen's American Agriculture.—If this is not a better *American* book than "Johnson's American Farmer's Encyclopedia," I never shall thank my friend Richard for my copy which I have not yet read. But I think I know the author from his boyhood up, and can vouch for the work in advance, as being one that will interest every reader who undertakes its perusal, and if it don't make him a wise, good, and intelligent American agriculturist, he will not be what this author is.

Premiums Awarded.—Those of the State Society it will be seen are mostly in dollars, or books. I doubt the good policy of all premiums, at these shows, as well as the *manner* in which they are awarded. And I hold it to be entirely bad policy to give them in dollars. Cups and medals, such as those the American Institute give, are in much better taste. They will be preserved long after the dollars are melted away and gone. If all these sums expended in premiums could be funded, how long would it take to accumulate a sufficient sum to

endow an agricultural school that would be an honor in all coming time to our Empire State. I only throw out the hint here by way of text. Who will take up the subject and finish the sermon? It is worthy of consideration.

I now come to the December No. The first article I shall notice, is that upon

Preparing Corn (Maize) for Shipping to Europe.—It strikes me that I am Yankee and old sailor enough to invent a portable steam-engine, that can be taken into the warehouse or on deck of the receiving ship, which shall thoroughly dry the corn in the act of passing it on board and into the hold. By passing the corn through a tube of only a few feet in length, made so that a volume of hot steam surrounds the corn and keeps the tube as hot as steam can make it, would effectually free the corn of moisture, so that it would go into the hold so dry as almost to insure it against mustiness. Who will try it? I charge nothing for the patent.

Letters from the South.—"Richard is himself again" whenever he takes hold of the pen. But at present he is travelling by railroad entirely too fast to give that interest to his letters that a slower rate of locomotion would enable him to do. So general a description as becomes necessary to crowd all the country between Baltimore and Charleston into one letter, lacks that detail which gives zest to a traveller's notes. We want you to stop by the wayside and "talk over the matter" with the old man and woman, girls and boys, besides the negroes. Give us "ten thousand a year" of little details of Southern farming, together with descriptions of lands, farms, ferries, stock, tools, and all the fixings. You must do it. The editor has long promised us something of the kind. [We have some of his letters in hand, which will soon appear, particular enough to suit Reviewer.]

Present Corn-Crop.—"Five hundred millions" is "all in my eye," and plenty of room for more. Your own estimate is nearer the truth, but that of 5 $\frac{1}{2}$ bushels to each soul in the United States, based upon the census of New York State the past summer, is far nearer the truth. I don't believe the average of the Union is greater than that of the State of New York.

Pigstyes.—Very good—much like mine—nothing new. My plan better. Excuse an old sea-captain who is in the habit of speaking positive. My floor falls each way from the centre, two inches in ten feet, so that the wet cannot run into the beds. My troughs run the whole length of the front, and have horizontal doors so hung, that when swung back, the latch falls on the inside edge of the trough, which leaves it for cleaning or filling on the outside of the pen. When the food is in, raise the latch and the hogs push the door forward until the latch falls on the outside of the trough, and holds it there until you want to feed again. The advantage besides the convenience, is, that all the hogs come at once to the feed and share it more equally. And you know, in spite of all education, hogs will be hoggyish, as well as folks, about their eating.

Show of the Berkshire Agricultural Society.—This comes from a ready pen, the traces of which I should like to see oftener in your pages. It also reminds me of home, though I would not from this

have your readers think that I am Berkshire born. This, I believe, is the oldest Society of the kind in the United States, and like some of my friends, it grows better with every year. May the Spanish salutation apply most particularly to it; and may all its doings tend to

"Variegate, adorn,

And make the farmer's home delightful."

The Alpaca, No. 7.—This No. is the most interesting of the series, though there is that in it which looks rather discouraging to those about engaging in the importation of Alpacas into the United States. I am more and more convinced, that if the attempt is made to bring them around Cape Horn, a large portion of them may be expected to die on the passage. But after their arrival, if due attention is paid to what is written in these few short articles, it does seem to me, that they can be naturalized to some of our mountainous districts and prove an immense addition to our national wealth. Every person desirous of information about the Alpaca, should procure this volume of the *Agriculturist*. I do not know where he could obtain the same amount of information in so cheap and condensed a form.

The Strawberry Question.—By W. R. Prince. As of the potato question, enough said. Mr. Prince spins out his yarn entirely too fine to wear well with a majority of your readers. And those who read his articles must "wade along" as deep as he has done in Mr. Downing's articles." Mr. Prince cannot "set this question at rest for ever." His bump of combativeness is too large; and so is that of "the opposition."

"*Review of the last Review.*"—I asked you, Mr. Editor, uncommonly serious, to tell us "where to feel the pulse of animals," and you answer just as though you knew I owned flocks and herds of cattle which I often skinned, when in fact (not being a Loco editor) I never even skinned a 'coon. In another place you intimate that I may be "one of the Editors of the Tribune." In other words, a 'coon to be skinned. Now the fact is, you don't know whether I am a 'coon or a 'possum, as you have only seen my nose yet. Just wait till my tale is full grown, before you pretend to say whether I am one thing or another. As to our difference of opinion about the tariff, we won't say another word. Time will show.

The Corn-Crop.—Not what it is, but what it may be. You say, "that all men will acknowledge it to be a very profitable crop to the Western farmer." I am as well satisfied as you are, that it is more profitable to the Eastern one. I have conversed with a great number of corn growers of the West, who agree that the crop does not there average over forty bushels to the acre. And the price will not average over a shilling a bushel (12½ cents) upon the farm, and in many places so remote from market that the corn must first be converted into pork, which is driven alive to market. And the stalks are absolutely worse than worthless, for it costs considerable labor to remove, or, as is most usual, cut and burn them out of the way for the next crop. But the Western land is less valuable, and the cultivation is far less than it is in this State and New England. But then the Eastern crop will average at least four times more in value

than a Western one, so that if the number of bushels can be made to average the same, notwithstanding the manuring, rent, and expensive cultivation, the Eastern corn-crop is a more profitable one than the Western. You estimate the value of the crop of stalks, if cut green and well-cured, entirely too low.

Take the United States through, and I fully believe that the corn-crop for any ten years of the past century, will average the most profitable of any cultivated and that the same will be the case for the next century. "The fact is, it is a mighty fine crop, stranger, any how you can fix it."

"*Ladies' Department.*"—My most respectful compliments to my dear friend "E. M. C.," of Lynn. How I wish I knew whether she was *disposable* or not, that I might tell her whether I was ditto, and seek her aid to help me out of my "unfortunate situation." As for "the class of ladies forming my acquaintance," they extend from New Orleans to Macinaw, and from Maine to Missouri, among which are many of the prettiest and best on earth; and I love the *whole of them* most truly, "E. M. C." included. And in all the cutting remarks I ever made in ridiculing the disposition of "farmers' daughters," to learn "piano-thumping," and little else, there never was one drop of gall. The truth is, I am notoriously *good-natured*; and I would not hold the anonymous and "thankless office of a critic," only in the hopes of being able thus to do more good than I could, unmasked. And my motto is "peace and good will," and though I intend to write with a free pen, I hope I never shall make a criticism in such a spirit as will drive one correspondent, particularly a female, from this paper. You will observe that I never criticise style—my own is too loose and negligent for that. I hope that every female correspondent will lay aside all fear of "Mr. Reviewer" (he won't bite nor scratch), and though I must continue to wear the "iron mask," take my word for it, that I have no iron features in my face to frighten them, and beg them to continue to let me see their beauties through the productions of their pens.

Influence of the Moon on Vegetation in Columbia.—Now I can get a thousand men to certify that the moon has an equal influence on vegetation in the United States, that this article asserts it does in that part of South America; but you would not believe it; neither do I believe that. Neither do I believe that salt will cure or prevent the potatoe disease.

Gun-Cotton.—If "villanous saltpetre" is to be dispensed with for this new combustible, how our Southern friends will be blowed up. And probably at some future time after the burning of one-half of New York city, it will not be necessary to inquire whether "saltpetre will explode," since we know that cotton will. I hope the whole of this new discovery will not all "blow out."

Agricultural Statistics of New York.—I want somebody that loves figures and has the leisure, to construct you a table to publish, showing the number of bushels per acre of each kind of grain, and the number of bushels of each kind *per caput* if it could be divided equally among all the souls in New York State. [We will endeavor to do this some leisure day.]

REVIEWER.

Ladies' Department.

ECONOMY OF LABOR-SAVING UTENSILS IN A KITCHEN OR ON A FARM.

In the February No. of your Journal you ask for facts, a request which I sincerely hope your contributors will respond to, as the most beautiful and apparently reasonable theories are of little worth without facts to prove their truth. In this age of novelty, the world appears to run mad after experiment, casting aside everything that is old, as beneath the notice of the modern student of the *ologies* merely because *it is old*; and, those who advocate the practice of old ways, are absurd, because they can give no other reason for their being good than that they have found them so by experience. Although this answer cannot satisfy an intelligent and cultivated mind, it is, as far as it goes, a good one, and should stimulate to investigation, not the extermination of old practices. This will apply to the employments of women as well as men, and should stimulate the farmers' wives to watch their neighbors, namely, comparing "Thrift with Unthrift," and learning the reasons why one is growing richer while the other has either remained stationary, or is gradually growing poorer. The gains of a farm are necessarily slow, and the farmer accumulates as much by saving as making; it therefore becomes an important consideration how each operation is to be performed with the least possible expenditure, not only of money, but time, which is equally valuable, notwithstanding few people educated in the country appear to think so.

A little reflection will show, that to save time is a great gain, while a liberal, though economical expenditure of money is equally so. Labor-saving machines in a farm-kitchen are, therefore, of the utmost importance, as they not only save time, but strength; for instance, if a farmer expends a few dollars in the purchase of a churn so constructed that it will bring butter in five, ten, or twenty minutes, and afterwards work the butter fit for printing, and this only by turning the handle (and there are such churns now in use), he will soon perceive that he has gained more than at first sight he could think possible. If he adds to this, pans for hot water, in which the milk-pans can be placed to prevent the new milk from cooling too rapidly, he will find on churning day, that he has gained one-fifth more butter than by the ordinary method. If such liberal conveniences are allowed the farmer's wife and daughters, as the modern sausage-chopper, that noiseless friend to the farmer's wife, that will silently do in two hours what it would take a man a whole day to accomplish by his single arm, or if a wood-shed in which the kitchen shall open, where a space can be portioned off for barrels and boxes that are to be receptacles for all sorts of things that the women should have in use close to the scene of their labors, and to receive trash that otherwise would be thrown out, littering the yard, and giving an air of unthrift that is always disgusting, and if saved in barrels and carefully collected on a compost heap, will serve as manure for the garden or farm, of the best quality, the farmer himself will find in a short time, that in saving his strength,

time, and health, he has gained at the end of the year, at least, the price of the labor-saving machines, and the following year, there will be a clear profit of money as well as time, that can be spent more profitably in lighter and equally useful occupations. If in the above mentioned wood-house, a row of barrels be placed close to the kitchen door, one for ready-made soap, one for soap-fat into which is previously placed twenty-five pounds of potash, and two barrels of water, one for pig-slop, another for bones and all the worthless scraps and sweepings of the house, and another for chicken-feed, the following results will take place:—The soap being close at hand, can be used when it is wanted, and there will be no excuse for things not being kept perfectly clean. If the barrel of potash and water be kept close at hand, ten times as much soap-fat will be *gathered and saved*, than if the barrel were not there; for it will take no more time to throw it there than into the pig's barrel, or to the dog. The potash will prevent the fat from becoming mouldy, or filled with skippers, which it is apt to do when collected in the usual way. The soap will make itself, if stirred once or twice a week, as shown by several good receipts in the back numbers of this journal. Potash, instead of ley, is most economical, as it is more certain in its results; and the ashes are more valuable on the manure-heap or pasture land than the soap is worth. The pig-slop will be under the mistress's eye, and ingredients neither too good nor too bad will be put in. The bones and scraps, now so highly prized as manure, may all be saved; and last, not least, dirt is not made, and the time and strength that would otherwise be taken in cleaning and scouring is saved for better purposes; and the chickens may be regularly fed without waste of time.

On a farm, as in a bee-hive, all should be workers, and the drones sent off. The women as well as the men, must, and should work; but all will find that the best economy is to save, whether it be in time or money, or strength, though all should be diligently, carefully, and liberally used, if the farmer wishes to thrive. If from a careful management of time, you save one hour a day, either from unnecessary sleep, pleasure, or ignorance, you will gain in five years, seventy-five days and two hours for profitable improvement of mind or means.

OLD LADY.

DAIRY-UTENSILS.—All dairy-utensils should be scalded, rinsed, and dried every time they are used. Glazed pottery is not considered desirable for milk or cream, as the acid contained in them acts upon the glazing (which is generally an oxide of lead), and converts it into an active poison. Vessels made of wood are preferred by many to any others, for this purpose; although they are liable to become tainted with the acidity of the milk, in which case they can only be thoroughly cleansed by boiling; and when this fails, a little salaratus added to the boiling water will effectually neutralize the acid. The vessels must afterwards be immersed for two or three days in water, which should occasionally be changed. Milk vessels may be made of maple, white ash, hickory, or white pine.

Boys' Department.

THE NEWFOUNDLAND DOG.

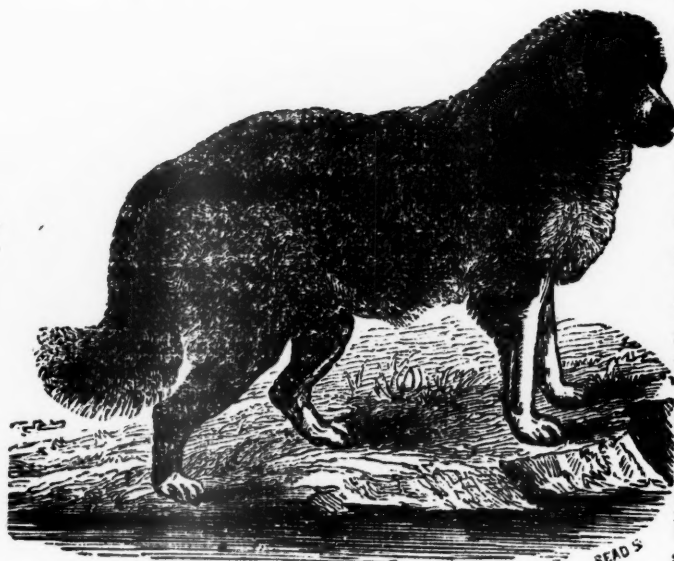


FIG. 32.

IN Newfoundland, these dogs are remarkably docile and obedient to their masters; are very serviceable on all fishing plantations; and are yoked in pairs, and used to haul home the winter fuel. They are gentle in disposition, faithful, good-natured, and ever a friend to man, at whose command they will leap into the water from the highest precipice, in the coldest weather. They are remarkably voracious, but, like their Indian masters, can endure hunger for a great length of time. In winter, they are usually fed on the worst salted fish; but when summer approaches, and the occupation of the natives changes to fishing, the poor dogs are turned adrift to shift for themselves.

The true breed of these animals has become scarce and difficult to procure. They grow to a larger size than an English mastiff, being from 25 to 27 inches high at the shoulder, long-bodied, broad-chested, with a shaggy coat, lined with a fine, close fur, a pointed, wolfish muzzle, ears small, and inclined to be semi-erect; color of various shades, from white to black, but the latter, which is most approved, prevails.

The smooth, short-haired dog, so much admired in Europe and in this country, as the Newfoundland dog, though a useful and sagacious animal, and nearly as hardy, and as fond of the water, is evidently the result of a cross with the mastiff. He is a fine showy dog, sometimes 30 inches in height, but is less active, and more apt to display irregularity of temper than the original. The true breed, in a wild state, hunts in packs, and is then ferocious, and in its habits similar to the wolf. Its origin, according to some, it is thought may be traced to a large dog still used for hunting the bear, by the Norwegians, who, it is well known, visited Greenland and Newfoundland before the year 1000.

In a domestic state, the Newfoundland dog is fond of children, and much attached to the members of the house to which he belongs; but frequently che-

rishes great antipathy to a stranger, or to those who wantonly fling at him stones or sticks. He will often suffer a cat to play with, and even lie and sleep on his back or side. He is a great enemy to sheep, which he seldom hesitates to kill, but partakes only of their blood. When very hungry, he will not scruple to steal a fowl, a fish, or a piece of meat; yet he will watch or guard a carcase of beef or mutton belonging to his master, keep off other dogs, and never touch it himself. Otherwise, he will neither attack nor fight a dog of inferior size, but growl at snarling curs and throw them aside; but with dogs of their own strength and size, they fight courageously, and will start immediately on hearing other dogs fight, to restore peace. So sagacious, indeed, are these animals, that they only seem to want the faculty of speech to make themselves fully understood; and they are capable of being trained to most of the purposes for which other dogs are used.

We shall close our account of the Newfoundland dog with the following beautiful epitaph, by Lord Byron, on his favorite Boatswain, on a monument at Newstead Abbey:—

INSCRIPTION.

"NEAR THIS SPOT
ARE DEPOSITED THE REMAINS OF ONE
WHO POSSESSED BEAUTY WITHOUT VANITY,
STRENGTH WITHOUT INSOLENCE,
COURAGE WITHOUT FEROCITY,
AND ALL THE VIRTUES OF MAN WITHOUT HIS VICES.
THIS PRAISE, WHICH WOULD BE UNMEANING FLATTERY
IF INSCRIBED OVER HUMAN ASHES,
IS BUT A JUST TRIBUTE TO THE MEMORY OF
BOATSWAIN, A DOG,
WHO WAS BORN AT NEWFOUNDLAND, MAY, 1803,
AND DIED AT NEWSTEAD ABBEY, NOV. 18, 1808."

When some proud son of man returns to earth,
Unknown to glory, but upheld by birth,
The sculptor's art exhausts the pomp of woe,
And storied urns record who rests below;
When all is done, upon the tomb is seen,
Not what he was, but what he should have been:
But the poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone,
Unhonor'd falls, unnoticed all his worth,
Denied in heaven the soul he held on earth:
While man, vain insect! hopes to be forgiven,
And claims himself a sole exclusive heaven.
Oh man! thou feeble tenant of an hour,
Debased by slavery, or corrupt by power,
Who knows thee well must quit thee with disgust,
Degraded mass of animated dust!
Thy love is lust, thy friendship all a cheat,
Thy smiles hypocrisy, thy words deceit!
By nature vile, ennobled but by name,
Each kindred brute might bid thee blush for shame.
Ye! who perchance behold this simple urn,
Pass on—it honors none you wish to mourn:
To mark a friend's remains these stones arise;
I never knew but one, and here he lies.

Newstead Abbey, 1808.

WHAT boy will make the following experiment?—Measure off in an old grass-field, that is not too wet, a piece of ground 10 rods one way and 16 rods the other. Dig up 160 round patches, two paces across and a rod apart from centre to centre. Plant a broad hill of pumpkins, well supplied with fine old barn-yard manure. Hoe them well through the season, and let the vines run on the grass after the hay is cut.

FOREIGN AGRICULTURAL NEWS.

By the late arrivals we have our foreign journals up to the 21st of March.

MARKETS.—*Askes* remained as per our last. *Cotton* had fallen ¼d per lb.; *Flour* 2s. to 2s. 6d. per bbl.; *Indian Corn*, 3s. to 4s. per 480 lbs. In provisions and other articles, we see no change worth recording.

Money was becoming rather scarce in consequence of the large amount of specie going out of the country for provisions.

Steep for Seed Potatoes.—Mr. Webster, of the Ipswich Philosophical Society, recommended that cuttings of potatoes intended for planting, should be immersed six or eight hours in a solution of hydrochloric (muriatic) acid, consisting of 1 oz. by measure, of acid, to 1 gallon of water. He states that he has been engaged since 1843 in a series of experiments upon the mode of preserving this valuable root, and in the course of his recent investigations, he has discovered that a steep of the above description will prove a remedy to the prevailing disease. The expense of steeping seed for planting an acre is about fourpence (eight cents), and incurs scarcely any additional trouble.

Substitute for Cream in Coffee.—Beat the white of an egg to froth. Put in it a small lump of butter, and gradually turn the coffee to it, so that it may not curdle. It is difficult to distinguish the taste from fresh cream.

To prevent Vermin on Poultry.—Scatter slacked lime on the perches and floor of the hen-house, in every eight or ten days, and it will effectually eradicate the lice as well as promote the health of the fowls.

Value of Night-Soil.—The city of Paris derives a revenue of nearly \$200,000 per annum for the privilege of permitting certain persons to collect and use this article, from the vaults, for manure.

Chalk and Coal-Fires.—The practical utility of chalk as an article of fuel has been lately tested, and with the most satisfactory results. Surrounded with coal, it gives a strong heat, and a clear fire, at half the usual expense; so that to the poor in the chalk districts it must be an invaluable boon.

Liquid Malt and Hops, or Concentrated Extract of malt and hops, is now very extensively used throughout the country, for the purpose of domestic brewing, as the entire process can be performed without employing any of the ordinary brewing utensils, but merely by dissolving the extract in boiling water, and fermenting at a proper temperature, with yeast. Dr Ure and Professor Brande, both celebrated chemists, speak in the highest terms of this preparation of malt and hops. We understand there are three kinds of extracts; one from pale malt for ale, another from brown malt for porter-brewing, and a third from malt alone for making malt and other British wines; it is also recommended for speedily preparing small quantities of sweet wort to drink medicinally.

Economical Mode of Cutting Cauliflowers.—Instead of cutting off the whole head of a cauliflower, leave a part on, of the size of a gooseberry, and all the leaves; second, and even third heads will be formed, and thus they may be eaten for two or three months; when, at present, by cutting the head completely off, the bed of cauliflowers are gone in two or three weeks.

To Cleanse the Teeth and Improve the Breath.—To four ounces of fresh prepared water, add one drachm of Peruvian bark, and wash the teeth with this water in the morning and evening, before breakfast and after supper. It will effectually destroy the tartar on the teeth, and remove the offensive smell arising from those that are decayed.

Soda-Coffee.—The flavor of Coffee may be improved by adding forty to fifty grains of carbonate of soda to each pound of roasted coffee. In addition to improving the flavor, the soda makes the coffee more healthy, as it neutralizes the acid contained in the infusion.

Camelina Sativa—Gold of Pleasure.—W. Taylor, Esq., F.L.S., read a paper, "on a new oil plant, called the gold of pleasure, or *Camelina sativa*, and its importance to agriculturists and manufacturers generally, with remarks on the opportunity now afforded of introducing its cultivation into Ireland." Samples of the seed and oil were exhibited. "I have," observes Mr. Taylor, "paid great attention for the last twenty years to the cultivation of oleiferous plants, the result of which has been the discovery of the Gold of Pleasure, or *Camelina sativa*. The plant is an annual, belonging to the natural order Crucifera, and grows to the height of two or three feet; it is a native of the most northern parts of Siberia. The first supply of seed was received from Professor Fischer, of the Royal Agricultural Society of St. Petersburg; the soils best adapted to its cultivation are those of a light nature, but it does not fail to produce a crop on land of the most inferior description; it has been found on barren sandy soils where no other vegetable would grow. The time for sowing the seed is early in the spring months; the quantity of seed required per acre is ten pounds; it should be drilled in rows about nine inches apart, and may be cultivated after any corn crops, and is a non-exhauster of the ground. Professor Van Ost, an eminent experimental chemist of Belgium, says, 'If farmers did but know the value of this plant, they would all grow it.' A fine oil is produced from the seeds, fit for burning in lamps; it can also be used in the manufacture of woollen goods, soap, &c., and can be sold at a cheap rate. The oil-cake made from this seed, has also been found highly nutritious and useful in fattening oxen and sheep, as it contains a great portion of mucilage, albumen, gluten, and other matter, which, when combined, is found to be very beneficial in developing fat and lean. Mr. Taylor concludes his paper by referring to the present distressing state of Ireland, and the importance of endeavoring to introduce into that country the cultivation of so valuable a plant, and by expressing his willingness to find seed provided he might be allowed to purchase the crop, which he states to be worth eight or ten pounds per acre without the straw."

[*Gold of Pleasure*, so highly vaunted by our trans-Atlantic friend, is often found growing in our cultivated fields, chiefly among flax, with the seeds of which it is sometimes introduced from abroad; but it does not long propagate itself with us spontaneously. It is an annual, from one to two feet high, with small, pale-yellow flowers, possessing but little beauty, which put forth in the month of June. We have heard of but few instances of this plant being cultivated in this country, and therefore cannot recommend it with much hope of success.]

Period of the Gestation of Cows.—From the late Earl Spencer's observation on the period of gestation of seven hundred and sixty-four cows, it appears that it extends to two hundred and eighty-four days, not two hundred and seventy days, as formerly stated.

Comparative Nutritive Powers of Green and Dry Fodder for Cattle.—A communication has been made to the Paris Academy of Sciences, by M. Boussingault, on the comparative nutritive powers of green and dry fodder for cattle. Hitherto the received opinion was, that natural or artificial grasses, on their being converted into hay, lost a portion of their virtues. To determine this point, M. Boussingault fed a heifer alternately, for ten days at a time, upon green or dry food, and weighed the animal after each ten days. He found no difference in the average weight; and therefore comes to the conclusion, that the hay made from any given quantity of natural or artificial grass has the same nutrition as the quantity of green food from which it is made.—*London Athenæum*.

Editor's Table.

THE FRUITS OF AMERICA; by C. M. Hovey, editor of the Magazine of Horticulture, containing richly-colored engravings, accompanied with the wood and foliage, of all the choicest fruits in the United States. From paintings from nature, made expressly for this work, by W. Sharp, chromo-lithed and retouched under his direction. The letter-press to contain a full description of the fruits, the habit of growth of the trees, color of the wood, and form of the leaves. The synonymes under which each variety is known, the origin and period of introduction, and all other particulars of importance to the Pomologist. Boston: C. C. Little & J. Brown, 112 Washington st., and Hovey & Co., 1 Merchants' Row.

The increased attention which, within a few years, has been given to *Pomology*, and the desire to obtain the most correct information in regard to the choicest varieties of *Fruit*, seem to demand a work of the character now announced. The recent publications devoted to the subject, as well as the many valuable articles in the horticultural periodicals of the day, in reference to it,—illustrated as they have been with outline engravings of fruits,—have done much to spread a better knowledge of the many varieties which have been brought to notice,—to facilitate the detection of synonymes,—and to establish a more correct nomenclature.

But experience has shown, that, to arrive at safe and certain conclusions, a reliance cannot be placed upon outline engravings, or descriptions of the fruit alone; and the great errors which have been the cause of so much disappointment to the ardent pomologist, might have, in most instances, been prevented, had cultivators made themselves acquainted with the habit of the trees, the color of the wood, or the form of the leaves. They are, indeed, in some instances, more to be relied upon than single specimens of the fruit alone; and an experienced cultivator can at once detect, at any season of the year, a great portion of the well known varieties of fruit. These characteristics have been considered, with many, as of secondary importance; but since the rapid multiplication of new sorts, we believe they will be found quite essential to aid in the detection of synonymes, and the distinction of varieties. But while engravings, merely have their value, they do not convey to the pomologist that general knowledge of fruits which he often wishes to acquire; such as the color or relative beauty of the different varieties; some of the most choice being of very inferior appearance, while others, less excellent, possess a beauty which often renders them worthy a place in every good collection.

The introduction of new fruits is a subject full of exciting interest to every pomologist; and the earliest information is eagerly sought in regard to the many varieties which are yearly introduced from abroad, or produced at home. To the horticultural works of the day, the cultivator will refer for brief accounts of these; but it will be the object of this work to give correct drawings, and full descriptions of the *select few*, especially those of American origin, as soon as they have been proved to possess qualities which entitle them to general cultivation.

To supply to the *fruit cultivator* this desideratum, will be the object of this work. It will contain richly colored illustrations of fruits, accompanied with the wood and leaves, from paintings made expressly for it, under the direction of the author; and, with the text, an outline engraving of every variety; accompanied, when important, with sketches of the habit of the trees; leaving nothing which can, in any way, assist the amateur cultivator, or nurseryman, in the identification of the numerous varieties, or furnish him with the fullest information in regard to their merits.

The work will appear in royal octavo numbers (uniform in size with Audubon's Birds of America), and will contain four plates each, with eight pages of letter-press, on the finest paper, and in beautiful type; the original paintings executed by that distinguished artist, W. Sharp, chromo-lithed and retouched under his eye. The text will give all the synonymes under which each variety is known, its origin, when to be ascertained, its period of introduction, with an accurate description of the habit of the tree, wood, leaves, flowers, and fruit, the period of ripening, and all other particulars worthy of note. The whole, with a few exceptions in the early numbers, from specimen trees in the extensive collection of the author, where their comparative merits, in the same soil and locality, can be correctly estimated.

The plates will not be numbered or paged, but left with a blank No., so that each class of fruit may be bound up by itself, arranged alphabetically, according to the season of ripening, or in any other way, when the work is completed, or together as issued, at the option of subscribers. Twelve numbers will complete a volume.

The first number of this elegant work has been issued and contains descriptions and colored figures of the following varieties of fruit, viz.:—Beurré d'Aremberg Pear, Glout Morceau Pear, Van Mons Léon le Clerc Pear, and the Baldwin Apple. In our judgment, the design of the work is thus far carried out and its execution is unequalled by any similar publication in the world. A work of this character has long been needed in this country, and should be liberally encouraged.

Terms.—In royal octavo, richly colored at \$1 per number, payable on delivery. A limited number of impressions in imperial quarto, very highly finished, \$2 per number. Subscriptions received by C. M. Saxton, 205 Broadway, N. Y.

CROPS OF THE UNITED STATES.—The Washington Era contains an estimate, taken from the letter of the Secretary of the Treasury, of December 10, 1846, of the quantity of each of the following staples, raised in the United States during the year 1846, with the value of each production, according to the prices they bore in this market on the 1st of December last, viz.:

| | | |
|--------------|----------------------|--------------------|
| Cotton— | 760,000,000 pounds, | worth \$73,150,000 |
| Oats— | 179,528,800 bushels, | " 69,567,410 |
| Rice— | 97,741,500 pounds, | " 3,786,483 |
| Barley— | 5,676,600 bushels, | " 3,434,343 |
| Rye— | 59,892,500 " | " 23,465,612 |
| Wheat— | 117,202,800 " | " 121,011,891 |
| Indian Corn— | 450,666,900 bus. | " 314,871,820 |
| | | \$609,287,559 |

PROFITABLE FARMING.—At a late meeting of the Massachusetts Legislative Agricultural Society, E. H. Derby, Esq., of Boston, said that he had given some attention to farming, and was reared in the country amidst merino sheep, which his father imported from Spain. Some years ago, he bought a farm on an island in Lake Winnipissiogee, N. H. It was carried on by an agent who had lived on it several years. At first he gave the agent and his wife \$200 a year, then \$250, and afterwards two cents a pound on the butter he made, one cent a pound on the cheese, and one cent on the pork he raised, exclusive of their board. He purchased the farm for \$2,100, and paid out for stocking it \$1,700 more, amounting in all to \$3,800. The sales, he said, had sometimes been as high as \$1,700 or \$1,800 a year. Some years he got little or no profit, while in others he cleared from 15 to 20 per cent., according to the season. On an average he got good percentage, and after nine or ten years he sold the farm for \$2,800, with the view of buying one near Boston, to which he could retire in the summer for the benefit of his children. When his agent first came to the farm he was worth about \$800 or \$900—when he left it he was worth \$9,000 or \$10,000!

New York State Agricultural Society.

Annual Exhibition of the Cattle-Show and Fair for 1847, to be held at Saratoga Springs, Sept. 14, 15 and 16.

The first day to be devoted exclusively to the examination by the Judges of the Animals and Articles exhibited, and no persons will be admitted within the enclosure on that day, but the Officers of the Society, Judges, and Exhibitors.

Any information desired by persons who intend to compete for premiums, will be furnished by the Secretary on application, and he solicits free and full inquiries from all who are desirous of competing at the Show, or of presenting articles for exhibition.

List of Premiums for 1847.

ON FARMS.

For the best cultivated farm of not less than fifty acres, exclusive of wood-land and waste land, regard being had to the quantity and quality of produce, the manner and expense of cultivation, and the actual profits:

First premium,\$50 | Second do.,\$30
Third do.,\$20

EXPERIMENTS AND ESSAYS.

Stall-feeding Cattle.—Best experiment in stall-feeding cattle or sheep. A full and detailed statement will be required. 1st. Weight and age of animal when feeding commences. The weight weekly during the process. 2d. The kind and exact quantity of feed, and its value. 3d. The weight when slaughtered, and the price at which sold, and the account of profit and loss. 4th. Any other particulars that may be of importance to a full and complete account of the whole process,\$20

Draining.—Best experiment in draining. 1st Statement of the situation of the land previous to the commencement of the process—the kind and condition of soil. 2d. The method pursued, with a particular account of the expense. 3d. The result and increased value of the land, if any,\$10

Top Dressing Grass-Land.—Best experiment. 1st. Situation of land and of soil. 2d. The kind, quantity, and value of the manure used. The manner of its application. 3d. The results, giving the increased product, &c. To be answered in 1848,\$20

Root-Crops.—Best experiment on not less than half an acre. 1st. State of land previous to crop, and how manured. 2d. The kind, quantity, and value of manure applied, and in what manner. 3d. The kind of soil and the manner of cultivation, with a detail of the expense. 4th. The result,\$10

Experiments in Fattening Animals on Indian Corn to test its value for that purpose.

ON PIGS.

1. Lot of ten pigs of about 100 lbs. weight each, in lots of 5; to be shut up between the 20th November and 20th December, and weighed separately when put in—the weight to be registered, as well as the sex, breed, and general characteristics of the pigs, and arrange them in the pen by sex, age, and size; to be fed on Indian corn alone.

2. Weigh a quantity of Indian meal, and feed it at regular hours—to be cooked and fed two weeks, and the corn dry two weeks, alternating the feed every two weeks.

3. Have the pigs kept clean.

4. At the end of two weeks, weigh each pig and enter its weight, and make an account, to be entered, of how much all have gained, and upon how much feed.

5. At the end of each succeeding two weeks perform the same process, and continue to do so for at least 12 weeks, and sum up the entire gain, quantity, and value of the feed, the market value of the pork, and where marketed, at the time each of the pigs is slaughtered and disposed of.

A premium of\$25

For experiments in fattening the like number of pigs, under the same regulations as above, or any other kind of grain or vegetables,25

The statements required, and everything connected with the experiment in each case, to be verified by the affidavit of the owner, and at least one other person.

FARMS, DWELLINGS, &c.

For the best design, accompanied with plans, elevation, and cost of construction, combining convenience, economy, and good taste,\$20

For the best design, accompanied with plans and cost of construction of a piggery,10

For the best design of a farm barn, with plans and cost of construction, and out-buildings,15

Competitors for the above premiums must forward their manuscripts to the Secretary previous to the 1st December, 1847, free of postage.

The above premiums for experiments and essays will be open to citizens of other States, as well as residents of this State.

PREMIUMS ON CHEESE-DAIRIES FOR 1847.

The number of cows not less than 20. B. P. JOHNSON, Chairman of Committee.

Special,\$50 | Second premium,\$30
First premium,50 | Third premium,20

ON BUTTER-DAIRIES.

The number of cows not less than 20. Hon. R. DENNISTON, Chairman of Committee.

First premium,\$30 | Second do.,\$20
Third do.,\$10

PREMIUMS ON CATTLE.

CLASS I.—DURHAMS.

| | |
|-----------------------------------|-----------------------------------|
| Best bull, 3 years old,\$20 | Best cow, 3 years old,\$20 |
| Second best,15 | Second best,15 |
| Third best,Am. Herd Book. | Third best,Am. Herd Book. |
| Best 2 years old,15 | Best heifer, 2 years old,15 |
| Second best,10 | Second best,10 |
| Third best,Am. Herd Book. | Third best,Am. Herd Book. |
| Best year old bull,10 | Best year old heifer,10 |
| Second best,5 | Second best,5 |
| Third best,Am. Herd Book. | Third best,Am. Herd Book. |
| Best bull calf,5 | Best heifer calf,5 |
| 2d do., .. Washington's Letters. | 2d do., .. Washington's Letters. |

CLASS II.—HEREFORDS.

| | |
|--|--|
| Best bull over 3 years old,\$20 | Best cow, 3 years old,\$20 |
| Second best,15 | Second best,15 |
| Best bull between 1 and 3 years old,15 | Best heifer between 1 and 3 years old,15 |
| Second best,10 | Second best,10 |
| Best bull calf,5 | Best heifer calf,5 |
| Second best, Wash. Letters. | Second best, Wash. Letters. |

CLASS III.—DEVONS.

| | |
|--|--|
| Best bull, 3 years old,\$20 | Best cow,\$20 |
| Second best,15 | Second best,15 |
| Best bull between 1 and 3 years old,15 | Best heifer between 1 and 3 years old,15 |
| Second best,10 | Second best,10 |
| Best bull calf,5 | Best heifer calf,5 |
| Second best, Wash. Letters. | Second best, Wash. Letters. |

CLASS IV.—AYRSHIRES.

| | |
|--|--|
| Best bull over 3 years old,\$20 | Best cow,\$20 |
| Second best,15 | Second best,15 |
| Best bull between 1 and 3 years old,15 | Best heifer between 1 and 3 years old,15 |
| Second best,10 | Second best,10 |
| Best bull calf,5 | Best heifer calf,5 |
| Second best, Wash. Letters. | Second best, Wash. Letters. |

CLASS V.—CROSSES, NATIVES, &c.

| | |
|---------------------------------------|------------------------------------|
| Best cow over 3 years old,\$20 | Best yearling heifer,\$10 |
| Second best,15 | Second best,5 |
| Third best,10 | Third best,Vol. Trans. |
| Best 2 year old heifer,15 | Best heifer calf,5 |
| Second best,10 | 2d best heifer calf, .. Wash Lett. |
| Third best 2 years old heifer,5 | |

WORKING OXEN.

| | |
|---|---|
| Best team of 20 yoke from any one county,\$25 | Largest No., not less than 10 yoke of oxen from any one town,\$20 |
| Second best,15 | Second largest,10 |
| Best yoke of oxen,15 | Third largest,Col. Tour. |
| Second best,10 | |
| Third best yoke, Vol. Trans. | |

THREE-YEAR OLD STEERS.

| | |
|------------------------------|-----------------------|
| Best yoke,\$10 | Second best,\$8 |
| Third best,Vol. Trans. | |

Best team of 10 yoke from any one county,\$5
To boys between the ages of 16 and 20, inclusive, who shall exhibit the best broke yoke of 3 year old steers, of their own training,Col. Tour.
Second best, do., Wash. Letters. | Third best, do.,Vol. Trans.

TWO-YEAR OLD STEERS.

| | |
|------------------------------|-----------------------|
| Best yoke,\$10 | Second best,\$5 |
| Third best,Vol. Trans. | |

To boys under 16 years of age, who shall exhibit the best broke yoke of 2 year old steers, of their own training,Col. Tour.
Second best, Wash. Letters. | Third best,Vol. Trans.

YEARLING STEERS.

| | |
|------------------------------|-----------------------|
| Best yoke,\$8 | Second best,\$5 |
| Third best,Vol. Trans. | |

To boys under 16 years of age, who shall exhibit the best broke yoke of yearling steers of their own training,Col. Tour.
Second best, Wash. Letters. | Third best,Vol. Trans.

In awarding the premiums on working oxen and steers, the single teams will be subjected to a trial on a loaded cart or wagon under the direction of the committee; and particular reference will be had to the matching, training, and docility of the animals, as well as their general appearance.

FAT CATTLE.

Best pair of fat oxen,..... \$15 | Second best,..... \$10
Third best,..... Colman's Tour.
Best ox steer,..... \$10 | Second best,..... \$5
Third best,..... Vol. Trans.
Best fat cow or heifer,..... \$10 | Second best,..... \$5
Third best,..... Vol. Trans.

A fat ox taking a premium as one of a pair, cannot compete singly for another premium.

FAT SHEEP.

Best fat sheep,..... \$10 | Second best,..... Col. Tour.
Third best,..... Vol. Trans.

Applicants for the premiums on fat cattle and sheep, must furnish statements of the manner of feeding the animals, and the kind, quantity, and cost of the food.

BEST MILCH-COWS.

The cow to be kept on grass only during the experiment, and for 15 days previous to each period of trial,..... \$20
The time of trial, from 10th to 20th of June, and from 1st to 10th of September.

Statement to be furnished containing

- 1st. The age and breed of cow, and time of calving.
- 2d. The quantity of milk in weight, and also of butter, during each period of ten days.
- 3d. The butter made, to be exhibited with the cow, at Saratoga, and the statement to be verified by the affidavit of competitor, and one other person conversant with the facts.

HORSES.**CLASS I.—FOR ALL WORK.**

Best stallion over 4 y'rs old, \$15 | Third best,.... Youatt on Horse.
Second best,..... 10 | Fourth best,..... Vol. Trans.
Best brood mare (with foal at her foot), for all work,..... \$15
Second best,..... \$10 | Third best,..... Youatt.
Fourth best,..... Vol. Transactions.

CLASS II.—DRAUGHT.

Best stallion over 4 y'rs old, \$15 | Third best,..... Youatt.
Second best,..... 10 | Fourth best,..... Vol. Trans.
Best brood mare (with foal at her foot),..... \$15
Second best,..... \$10 | Third best,..... Youatt.
Fourth best,..... Vol. Trans.

CLASS III.—BLOOD.

Best stallion over 4 y'rs old, \$15 | Third best,..... Youatt.
Second best,..... 10 | Fourth best,..... Vol. Trans.
Best brood mare (with foal at her foot),..... \$15
Second best,..... \$10 | Third best,..... Youatt.
Fourth best,..... Vol. Trans.

THREE-YEAR OLD STALLIONS.

Best 3 years old stallion,.... \$10 | Third best,..... Youatt.
Second best,..... 5 | Fourth best,..... Vol. Trans.
Best mare 3 years old,.... 10 | Second best,..... \$5
Third best,..... Youatt.

GELDINGS AND MATCHED HORSES.

Best Gelding,..... Diploma. | Second best,..... Youatt.
Best pair of matched horses,.... \$8 and Diploma.
Second best,..... \$5 | Third best,..... Vol. Trans.

SHEEP.**CLASS I.—LONG-WOOLLED.**

Best buck,..... \$10 | Best 5 ewes,..... \$10
Second best,..... 5 | Second best,..... 5
Third best,..... Am. Shepherd. | Third best,..... Am. Shepherd.
Best pen 5 lambs,..... \$5

CLASS II.—MIDDLE WOOLLED.

Best buck,..... \$10 | Best 5 ewes,..... \$10
Second best,..... 5 | Second best,..... 5
Third best,..... Am. Shepherd. | Third best,..... Am. Shepherd.
Best pen 5 lambs,..... \$5

This class includes the South Down, Norfolk, Dorset, Native, &c.

CLASS III.—MERINOS AND THEIR GRADES.

Best buck,..... \$10 | Best 5 Ewes,..... \$10
Second best,..... 5 | Second best,..... 5
Third best,..... Am. Shepherd. | Third best,..... Am. Shepherd.
Best pen 5 lambs,..... \$5

This class includes all those generally denominated Merinos, whether of pure or mixed blood.

CLASS IV.—SAXONS AND THEIR GRADES.

Best buck,..... \$10 | Best 5 Ewes,..... \$10
Second best,..... 5 | Second best,..... 5
Third best,..... Am. Shepherd. | Third best,..... Am. Shepherd.
Best pen 5 lambs,..... \$5

This class includes all those generally denominated Saxons, whether of pure or mixed blood.

When sheep are presented for premiums unshorn, evidence will be required of the age of the fleece.

SWINE.—LARGE BREED.

Best boar, 2 years old,.... \$10 | Best sow, 2 years old,.... \$10
" " 1 year old,.... 8 | " " 1 year old,.... 8
" " 6 mos. and over, 5 | " " 6 months,.... 5

This includes Cheshire, Berkshire, Russia, McKay, Leicester, and their grades.

SMALL BREED.

Best boar, 2 years old,.... \$10 | Best sow, 2 years old,.... \$10
" " 1 year old,.... 5 | " " 1 year old,.... 8
" " 6 mos. and over, 5 | " " 6 months,.... 5

This class includes Neapolitan, Suffolk, Improved China, Chinese, Mocko, and other grades.

Best lot of pigs not less than 4 in number, under 10 months,.... \$5
Second best, " " " " Vol. Trans.

In awarding premiums on hogs, reference will be had not merely to their present condition, but to that proportion between bone and meat which promises the greatest value from the least amount of feed.

POULTRY.

For the best lot of Dorking Fowls, not less than 3, 1 cock and 2 hens,..... \$2 and Am. Poulterer's Companion.
Best lot of Black Poland, not less than 2,.... \$2 and Am. P. Comp'n.
Best lot of large fowls, not less than 3,..... 2 " "
Best pair of ducks,..... 2 " "
Best pair of turkeys,..... 2 " "
Best pair of geese,..... 2 " "
Best and greatest variety of barn-yard fowls owned by the exhibitor,..... \$5 and Am. Poulterer's Companion.

PLOWS.

Best plow possessing some new and valuable improvements,..... \$10 and Diploma.
Best subsoil plow,..... 10 "
Best scarifier,..... 10 "
Best roller for general use,..... 5 "
Best clod crusher and roller,..... 5 "

WAGONS, HARROWS, &c.

Best farm wagon,.... \$10 and Dip. | Best Corn Stalk Cut. \$5 and Dip.
Second best,..... Col. Tour. | Second best,..... Trans.
Best Harrow,..... \$3 | Best Thresh'g Ma. \$10 and Dip.
Best Cultivator,..... 3 | Second best,..... Trans.
Best Fanning Mill, \$5 and Dip. | Best Drill Barrow, . \$3 and Dip.
Second best,..... Trans. | Best Straw Cutter, . \$3 and Dip.
Best Horse Power, \$5 and Dip. | Second best,..... Trans.

FARM-IMPLEMENTS, &c.

Best Corn and Cob Crusher, | Best Saddle, Diploma.
by horse power, . \$5 and Dip. | " Grain Cradle, do
Second best,.... Colman's Tour. | " six hand rakes,..... do
Best Clover machine \$5 and Dip. | " six hay forks,..... do
Second best,..... Col. Tour. | " six grass scythes,.... do
Best Flax and Hemp Dresser,..... \$5 and Diploma. | " six cradle do..... do
Second best,..... Col. Tour. | " six dung forks,..... do
Best Horse Cart for farm,.... \$2 | " six axes,..... do
" Ox Cart,..... \$3 | " hay rigging, do
" Horse Rake,.... \$2 and Dip. | " lot grain measures,.... do
" Ox Rake,..... Diploma. | " lot butter tubs and firkins,..... do
" Farm Harness,..... do

For the best and most numerous collection of Agricultural Implements,..... \$10 and Diploma.
Also, for the best and most numerous collection of Agricultural implements, manufactured in the State of New York, by or under the supervision of the exhibitor, \$10 and Dip.

PLOWING MATCH.

First premium,..... \$15 | Third premium, ... \$10
Second do 12 | Fourth do Col. Tour.
Fifth,..... Vol. Transactions.
For boys under eighteen years of age.
First premium,..... \$10 | Second premium,.... \$5
Third do..... Vol. Trans.

BUTTER.

For the best lot (quality as well as quantity considered), made from 5 cows in 30 successive days,—25 lbs. of the butter to be exhibited,..... \$25

| | |
|------------------------------------|--|
| Second best,..... \$15 | Best 50 lbs. made at any time,..... \$15 |
| Third best,..... 10 | Second best,..... \$10 |
| Best 25 lbs. made in June,..... 10 | Third do Col. Tour. |
| Second best,..... Col. Tour. | Fourth do Silver Medal. |
| Third do Vol. Trans. | Fifth do Vol. Trans. |

CHEESE.

One year old and over.

| | |
|----------------------------|---------------------------------|
| Best 100 lbs,..... \$15 | Third best, Silver Medal. |
| Second best,..... 10 | Fourth do Wash. Letters. |
| Fifth do Vol. Trans. | |

Less than one year old.

| | |
|------------------------------|---------------------------------|
| Best 100 pounds,..... \$15 | Third best, Silver Medal. |
| Second best,..... 10 | Fourth do Wash. Letters. |
| Fifth best,..... Vol. Trans. | |

SUGAR.

| | |
|------------------------------------|-----------------------------|
| Best 25 lbs. maple sugar,.... \$10 | Third best,..... Col. Tour. |
| Second best,..... 5 | Fourth do..... Vol. Trans. |

SILK.

| | |
|---|---|
| Best specimen manufactured (woven into cloth or ribbons),..... \$15 | Best specimen of sewing silk, not less than 1 lb. of domestic growth,..... \$10 |
| Second best,..... 10 | Second best,..... 5 |
| Third best,..... Col. Tour. | Third best,..... Col. Tour. |
| Fourth best,..... Vol. Trans. | Fourth best,..... Vol. Trans. |
| Best specimen not less than one pound reeled silk,.... \$5 | Best one-half bushel cocoons, 1847,..... \$8 |
| Second best,..... Col. Tour. | Second best,..... Col. Tour. |
| Third best,..... Vol. Trans. | Third best,..... Vol. Trans. |

DOMESTIC MANUFACTURES.

| | |
|--|---|
| Best woollen blankets \$5—Second, \$4—Third, \$3. | Best rag carpet, 15 yards \$3—Second, \$2—Third, Trans. |
| Best ten yards flannel, \$5—Second, \$4—Third, \$3. | Best double carpet coverlet, \$4, Second, \$3—Third, \$2—Fourth, Trans. |
| Best ten yards of woollen cloth, \$5—Second, \$4—Third, \$3. | Best pair woollen-knit stockings, \$2—Second, Trans. |
| Best woollen carpet, \$5—Second, \$4—Third, \$3. | Best wove woollen stockings, \$2—Second, Trans. |
| Best tow cloth, 15 yards, \$5—Second, Vol. Transactions. | Best cotton wove stockings, \$2—Second, Trans. |
| Best ten yards linen, \$5—Second, \$4—Third, \$3. | Best pound of linen sewing thread, \$2—Second, Trans. |
| Best ten yards linen diaper, \$5—Second, \$4—Third, \$3. | Best linen wove stockings, \$2—Second, Trans. |
| Best hearth rug, \$5—Second, \$4—Third, \$3—Fourth, \$2—Fifth, Vol. Trans. | Best linen knit stockings, \$2—Second, Trans. |
| Best ten yards kersey, \$3—Second, 2—Third, Trans. | Best knit cotton stockings, \$2—Second, Trans. |

Discretionary premiums will be awarded for other articles, deemed worthy, by the committee.

NEEDLE, SHELL, AND WAX-WORK

| | |
|--|------------------|
| Best ornamental needle work,..... | \$1 and Diploma. |
| " ottoman cover,..... | " " |
| " table covers,..... | " " |
| " group flowers,..... | " " |
| " variety of worsted work,..... | " " |
| " fancy chair work, with needle,..... | " " |
| " worked cushion and back,..... | " " |
| " worked collar and handkerchief,..... | " " |
| " woollen shawl,..... | " " |
| " worked quilts,..... | " " |
| " white quilts,..... | " " |
| " silk patch-work quilt,..... | " " |
| " fringe mittens,..... | " " |
| " portfolio, worked,..... | " " |
| " bonnets, silk,..... | " " |
| " do straw,..... | " " |
| " lace capes,..... | " " |
| " lamp-stand mat,..... | " " |
| " ornamental shell-work,..... | \$3 and Diploma. |
| " specimen of wax-flowers,..... | 2 " |

Discretionary premiums to be awarded for other articles which are deemed entitled to commendation.

FLOWERS.

| | |
|--|---|
| PROFESSIONAL LIST. | AMATEUR LIST. |
| Greatest variety and quantity of flowers,..... \$5 | Greatest variety and quantity of flowers... Silver Medal. |
| <i>Dahlias.</i> | <i>Dahlias.</i> |
| Greatest variety,..... 5 | Greatest variety,.... Silv. Medal. |
| Best 24 dissimilar blooms,.... 3 | Best 12 dissimilar blooms, Horticulturist. |

Roses.

| | |
|----------------------------------|--|
| Greatest variety,..... 5 | |
| Best 24 dissimilar blooms,.... 3 | |

Phloxes.

| | |
|---------------------------|--|
| Best 10 varieties,..... 3 | |
| Best seedling,..... 2 | |

Verbenas.

| | |
|-------------------------------------|--|
| Greatest variety and number,..... 3 | |
| Best 12 varieties,..... 2 | |
| Best seedling,..... 2 | |

German Astors.

| | |
|----------------------------------|--|
| Best collection,..... 3 | |
| Best and greatest variety,.... 3 | |
| Best 24 varieties,..... 2 | |

Pansies.

| | |
|----------------------------------|--|
| Best collection,..... 3 | |
| Best and greatest variety,.... 3 | |
| Best 24 varieties,..... 2 | |

Roses.

| | |
|--|--|
| Greatest variety, Silver Medal. | |
| Best 12 dissimilar blooms, Horticulturist. | |

Phloxes.

| | |
|----------------------------------|--|
| Best 6 varieties, Horticulturist | |
| " seedling,.... do | |

Verbenas.

| | |
|-----------------------------------|--|
| Greatest variety, Horticulturist. | |
| Best 12 varieties,.... do | |
| " seedling,.... do | |

German Astors.

| | |
|---------------------------------|--|
| Best collection, Horticulturist | |
| Best collection, Horticulturist | |

Pansies.

| | |
|---------------------------------|--|
| Best collection, Horticulturist | |
| Best collection, Horticulturist | |

GENERAL LIST.**Open to all Competitors.**

| | |
|--|------------------------------|
| Best collection Green-House Plants owned by one person, Silver Medal | |
| " Floral design, Silv. Medal. | Second best, Col. Tour |
| Best Floral ornament, do | Third do Wash. Letters |
| Best hand Bouquet "flat,"..... Horticulturist. | |
| Second best,.... Wash. Letters.—Third do Transactions. | |
| Best hand bouquet, "round,".... Horticulturist. | |
| Second best,.... Wash. Letters. Third do Transactions | |

VEGETABLES.

| | |
|---------------------------------|----------------------------------|
| 24 best stalks celery,..... \$1 | 12 best sweet potatoes,..... \$1 |
| 6 best heads cauliflower.... 1 | Best half peck Lima beans,.... 1 |
| 6 best heads brocoli..... 1 | " half peck Windsor do.. 1 |
| 12 best white table turnips, 1 | " bunch double parsley, 1 |
| 12 best earrots,..... 1 | Three best squashes,..... 1 |
| 12 best table beets,..... 1 | Largest pumpkin,..... 1 |
| 12 best parsnips,..... 1 | 12 best ears seed-corn,..... 1 |
| 12 best onions,..... 1 | Best half peck table potatoes, 1 |
| 3 best heads of cabbage,.... 1 | Second best,..... 1 |
| 12 best tomatoes,..... 1 | Best seedling potato,..... 1 |
| 2 best purple egg-plants,.... 1 | |

Discretionary premiums will be awarded on choice garden products not above enumerated.

MISCELLANEOUS.

| | |
|---|--|
| Best Iron Gate for farm purposes,..... Silver Medal. | |
| " ornamental cast-iron vase, on pedestal,..... do | |
| " sample drain tile,..... do | |
| Best quarter of an acre of osier willow, and the best specimens manufactured from the product,..... \$5 | |
| Best specimen wire hurdle fence, to be accompanied with an account of cost,..... Silver Medal. | |

PAINTINGS AND DRAWINGS.

| | |
|--|----|
| Best specimen,..... \$10 and Diploma | |
| " specimen of animal portraits,..... 10 | do |
| " drawing of show grounds and buildings,.... | do |

STOVES.**Possessing some New and Valuable Improvements.**

| | |
|--|--|
| Best cooking stove for wood fire,..... Diploma. | |
| Second best,..... Silver Medal. | |
| Best cooking stove for coal fire,..... Diploma. | |
| Second best,..... Silver Medal. | |
| Best parlor stove,..... Diploma. Second best, Silver Medal. | |

For improvements and machinery useful to the farmer, and having valuable properties, premiums will be awarded.

PREMIUMS ON FRUIT.

LEWIS F. ALLEN, Buffalo, Chairman of the Committee.

APPLES.

For the greatest and best variety of good table apples, 3 of each variety, named and labelled, grown by exhibitor, Downing's Fruit and Fruit Trees of America. Col'd plates.

For the second best,..... \$5 and Downing's com'n edition.

Third best,..... Vol. Trans.

The best 12 varieties of table apples, labelled, \$5 and D's com'n ed

Second best, do 2 do

The best 6 winter varieties, do. labelled,.... 3 do

Second best, do 1 and Trans.

PEARS.

For the greatest number of varieties of good pears, named and labelled,..... Downing's book, col'd plates.

Second greatest, do \$5 and Downing's common edition.

Third do Vol. Trans.

For the best select collection of first rate autumn pears, named and labelled, \$5 and Downing's common edition

Second best,..... 2 do do

For the largest and best collection of winter pears, named and labelled,.....\$3 and Downing's common edition.
 Second best, do Downing's common edition.
 Best collection of newly introduced pears, with a description, &c., as provided for new variety of seedling apples, Downing's book, colored plates.

PEACHES.

Best 12 varieties, labelled,.....\$5 and Downing's common edition
 Second do..... 2 do do
 Best 6 varieties, labelled,..... 3 do do
 Second do..... 1 do do
 Best 12 peaches,..... 2 do do
 Second do..... Downing's do
 Best seedling variety, 6 spec'ns 3 do do
 Second do..... 2 do do

PLUMS.

Best collection of plums, 6 spec. each variety, ..\$5 and D's com. ed.
 Second do..... 5 do do
 Best 6 varieties of good plums, 6 spec. each,
 \$3 and Thomas' Fruit Culturist.
 Second do..... 1 do do
 Best 12 plums, choice variety,.... 1 do do
 Second do..... Thomas' Fruit Culturist.
 Best seedling plums, with descriptions, as in apples,
 \$5 and Downing's common edition.
 Second do..... 2 do do

NECTARINES AND APRICOTS.

Best and greatest number of good varieties, 6 specimens each, labelled,.....\$3 and Downing's com. edition.
 Second do..... 2 and Thomas' Fruit Cult.
 Best 12 specimens of any good variety,\$1 and Down. com. ed.
 Second do.....\$1 and Thomas' Fr. Cult.

QUINCES.

Best 12 quinces of any variety,.....\$3 and Down. com. ed.
 Second do 1 and Thos. Fr. Cul.
 Third do do

GRAPES.

Best and most extensive collection of good native grapes, grown in open air,.....\$5 and Down. com. ed.
 Second do..... 2 do do
 Best 3 varieties of native or foreign grapes, grown under glass, 3 bundles each to be shown,.....\$5 and Down. com. ed.
 Second do 2 do do
 Best dish of native grapes,..... Thomas' Fruit Cult.

WATERMELONS.

Best 6 specimens of any variety, ..\$3 and Bridgman's Gard. Ass't.
 Second best,..... 1 do do

MUSKMELONS.

Best 6 specimens of any variety,\$3 and Bridgman.
 Second do 1 do

CRANBERRIES.

Best peck of domestic culture, \$5 | Second do..... \$2
 Six vols. of Downing, common edition, and twelve of Thomas' Fruit Culturist will be awarded by the committee, in their discretion, for choice fruits not enumerated.

WINTER MEETING.

For the best new seedling variety of winter apples, of decidedly superior quality and valuable for exportation; one dozen specimens to be exhibited, together with a history of its origin; a description of the growth, character and habits of the tree, and the growing of the fruit—such fruit to be adjudged by the committee as of the first character for orchard purposes, Down. book, col. plts.
 For the second best, do.....\$5 and do com. ed.
 The above new seedling variety to be sent to B. P. Johnson, Secretary, Agricultural Rooms, Albany, before the 15th January, 1848, for examination.

For the best new fall seedling apple for all purposes, conditions and descriptions as above,.....\$5 and Down. com. ed.
 Second best, do..... 2 do do
 These last named to be exhibited at the Annual Fair and Show of the Society in 1848.

DISCRETIONARY PREMIUMS.

Will be awarded for articles of merit exhibited by *Mechanics*, in all the various branches—and it is hoped that a general exhibition will be made.

Plate will be substituted for money premiums in all cases, at the option of competitor.

FIELD-CROPS.—AT WINTER-MEETING.

Best crop of wheat raised upon any farm not less than 2 acres, to be harvested, threshed and measured,..... \$15
 Second best.....\$10 | Third do..... Vol. Trans.
 Best crop of spring wheat, not less than 2 acres, to be harvested, &c.,.....\$10
 Second best,.....\$8 | Third do Vol. Trans.
 Best crop of Indian corn, not less than 2 acres, to be gathered, shelled and weighed, between the 20th December and 5th January,.....\$20
 Second do.....\$15 | Third do\$8
 Best crop of barley, not less than 2 acres, to be harvested, &c.,.....\$10
 Second do.....\$8 | Third do Trans.
 Best crop of rye, 2 acres,.....\$8
 Second do.....\$5 | Third do Vol. Trans.
 Best crop of oats, 2 acres, &c.,.....\$10
 Second do.....\$8 | Third do Trans.
 Best crop of potatoes, not less than one acre, to be dug and measured, of a good table quality,.....\$10
 Second do.....\$8 | Third do Trans.
 Best crop of potatoes, as to quantity not less than one acre,.....\$10
 Second do.....\$8 | Third do Trans.
 Best crop of ruta baga, not less than one acre, to be weighed, and 50 lbs. estimated as a bushel,.....\$10
 Second do.....\$8 | Third do Trans.
 Best crop of sugar beets, not less than $\frac{1}{2}$ an acre, weight as above,.....\$8
 Second do.....\$5 | Third do Trans.
 Best crop of carrots, $\frac{1}{2}$ an acre,.....\$8
 Second do.....\$5 | Third do Trans.
 Best crop mangel wurtzel, $\frac{1}{2}$ an acre,.....\$8
 Second do.....\$5 | Third do Trans.
 Best crop of peas, 1 acre,.....\$8
 Second do.....\$5 | Third do Trans.
 Best crop of beans, not less than one acre,.....\$8
 Second do.....\$5 | Third do Trans.
 Best acre of corn fodder, with a particular account of manner of cultivation and securing the crop,.....\$10
 Best half acre of hops, with a full account of method of preparing, cultivating and preparing crop for market,.....\$10
 Best half acre of flax, with like statements as above,..... 5
 Best half acre of tobacco, do do 5
 Best acre of broom corn, do do 5
 Best acre of clover seed, do do 5
 Best acre of timothy seed, do do 5

EXPERIMENTS.

Whereas, The Agricultural Society of the State of New York has not an experimental farm; and whereas, to some extent, satisfactory experiments can be made by intelligent farmers on their own farms, therefore,

Resolved, That the undermentioned list of premiums be offered to induce public-spirited individuals to lend their valuable aid in extending the boundaries of accurate rural knowledge.

Three premiums will be awarded of \$30, \$20, and \$10, in January, 1848, for the best experiment upon a herd of not less than 8 cows, to determine the relative advantages of soiling, or depasturing milch cows.

For the best experiment to be continued through three crops, to ascertain in bushels of grain and weight of stalks or straw the actual value of manure to a farmer.

For the best,.....\$40
 Second best,.....\$30 | Third best,.....\$20
 \$20 will be paid at the Annual Meeting of the Society in 1848, to the person who will make the most satisfactory agricultural experiment, accuracy and the importance of the experiment to be taken into consideration. A full detail of the experiment and its results must accompany the application.

For the best managed entire flock of sheep of not less than 100 to be awarded at the annual meeting in 1848.

Best,....\$30 | Second do.....\$20 | Third do.....\$10

Competition from persons not residents of the State.

Premiums of Plate, Medals and Diplomas, will be awarded on—

The best Bull of any breed 3 years old.

do do do 2 do

On the best Cow, 3 years old.

do Heifer, 2 do

do do 1 do

do yoke of working oxen

do pair fat cattle.

do stallion.

do brood mare.

do pair matched horses.

do buck, long or middle woolled

do do fine wool.

do pen of Merino and Saxony ewes, not less than

5 each.

B. P. JOHNSON Secretary.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, APRIL 17, 1847.

| | | | |
|---|--------|----|--------|
| ASHES, Pots,.....per 100 lbs. | \$4 87 | to | \$5 00 |
| Pearls,.....do. | 6 44 | " | 6 50 |
| BALE ROPE,.....lb. | 5 | " | 6 |
| BARK, Quercitron,.....ton. | 35 00 | " | 36 00 |
| BEANS, White,.....bush. | 1 25 | " | 1 75 |
| BEE SWAX, Am. Yellow,.....lb. | 26 | " | 30 |
| BOLT ROPE,.....do. | 11 | " | 12 |
| BONES, ground,.....bush. | 40 | " | 55 |
| BRISTLES, American,.....lb. | 25 | " | 65 |
| BUTTER, Table,.....do. | 16 | " | 23 |
| Shipping,.....do. | 9 | " | 15 |
| CANDLES, Mould, Tallow,.....do. | 9 | " | 11 |
| Sperm,.....do. | 25 | " | 38 |
| Stearic,.....do. | 20 | " | 25 |
| CHEESE,.....do. | 5 | " | 10 |
| COAL, Anthracite,.....2000 lbs. | 5 00 | " | 6 00 |
| CORDAGE, American,.....lb. | 11 | " | 12 |
| COTTON,.....do. | 10 | " | 14 |
| COTTON BAGGING, Amer. hemp,....yard, | 11 | " | 14 |
| FEATHERS,.....lb. | 25 | " | 34 |
| FLAX, American,.....do. | 7 | " | 8 |
| FLOUR, Northern and Western,.....bbl. | 7 25 | " | 7 75 |
| Fancy,.....do. | 7 75 | " | 8 00 |
| Southern,.....do. | 7 12 | " | 7 50 |
| Richmond City Mills,.....do. | 8 00 | " | 8 50 |
| Buckwheat,.....do. | 4 00 | " | 4 25 |
| Rye,.....do. | 4 87 | " | 5 00 |
| GRAIN—Wheat, Western,.....bush. | 1 65 | " | 1 75 |
| Southern,.....do. | 1 50 | " | 1 65 |
| Rye,.....do. | 90 | " | 91 |
| Corn, Northern,.....do. | 90 | " | 1 00 |
| Southern,.....do. | 85 | " | 95 |
| Barley,.....do. | 70 | " | 75 |
| Oats, Northern,.....do. | 46 | " | 50 |
| Southern,.....do. | 40 | " | 44 |
| GUANO,.....do. | 2 50 | " | 3 00 |
| HAY, in bales,.....100 lbs. | 50 | " | 56 |
| HEMP, Russia, clean,.....ton. | 240 00 | " | 245 00 |
| American, water-rotted,.....do. | 105 00 | " | 185 00 |
| American, dew-rotted,.....do. | 75 00 | " | 125 00 |
| HIDES, Dry Southern,.....do. | 9 | " | 10 |
| HOPS,.....lb. | 8 | " | 10 |
| HORNS,.....100. | 2 00 | " | 10 00 |
| LEAD, pig,.....do. | 4 25 | " | 4 31 |
| Sheet and bar,.....lb. | 4 1/2 | " | 5 1/2 |
| MEAL, Corn,.....bbl. | 4 88 | " | 5 00 |
| Corn,.....lhd. | 20 00 | " | 22 50 |
| MOLASSES, New Orleans,.....gal. | 34 | " | 37 |
| MUSTARD, American,.....lb. | 16 | " | 31 |
| NAVAL STORES—Tar,.....bbl. | 2 00 | " | 2 25 |
| Pitch,.....do. | 88 | " | 1 06 |
| Rosin,.....do. | 50 | " | 60 |
| Turpentine,.....do. | 2 50 | " | 3 00 |
| Spirits Turpentine, Southern,....gal. | 38 | " | 43 |
| OIL, Linseed, American,.....do. | 77 | " | 80 |
| Castor,.....do. | 75 | " | 80 |
| Lard,.....do. | 85 | " | 90 |
| OIL CAKE,.....100 lbs. | 1 50 | " | 1 75 |
| PEAS, Field,.....bush. | 1 25 | " | 1 75 |
| PLASTER OF PARIS,.....ton. | 2 25 | " | 3 00 |
| Ground, in bbls.,.....of 300 lbs. | 1 12 | " | 1 25 |
| PROVISIONS—Beef, Mess,.....bbl. | 10 00 | " | 12 50 |
| Prime,.....do. | 8 50 | " | 9 50 |
| Smoked,.....lb. | 7 | " | 11 |
| Rounds, in pickle,.....do. | 5 | " | 7 |
| Pork, Mess,.....bbl. | 12 50 | " | 15 00 |
| Prime,.....do. | 12 00 | " | 13 25 |
| Lard,.....lb. | 9 | " | 10 1/2 |
| Bacon sides, Smoked,.....do. | 6 | " | 8 |
| In pickle,.....do. | 5 | " | 7 |
| Hams, Smoked,.....do. | 8 | " | 12 |
| Pickled,.....do. | 6 | " | 10 |
| Shoulders, Smoked,.....do. | 6 | " | 8 |
| Pickled,.....do. | 5 | " | 7 |
| RICE,.....100 lbs. | 3 25 | " | 4 88 |
| SALT,.....sack, | 1 25 | " | 1 35 |
| Common,.....bush. | 20 | " | 35 |
| SEEDS—Clover,.....lb. | 7 | " | 10 |
| Timothy,.....7 bush. | 16 00 | " | 25 00 |
| Flax, clean,.....do. | 10 25 | " | 11 25 |
| rough,.....do. | 10 50 | " | 11 50 |
| SODA, Ash, cont'g 80 per cent. soda,....lb. | 3 | " | 3 |
| Sulphate Soda, ground,.....do. | 1 | " | — |
| SUGAR, New Orleans,.....do. | 6 1/2 | " | 9 |
| SUMAC, American,.....ton. | 35 00 | " | 37 50 |
| TALLOW,.....lb. | 8 | " | 9 |
| TOBACCO,.....do. | 2 | " | 7 |
| WHISKY, American,.....gal. | 27 | " | 28 |
| WOOL, Saxony,.....lb. | 35 | " | 60 |
| Merino,.....do. | 25 | " | 30 |
| Half blood,.....do. | 20 | " | 25 |
| Common do,.....do. | 18 | " | 20 |

REMARKS.—The only article that has advanced since our last is Flour, and this is owing to the small quantity in this market. The Erie Canal will soon be open, when we shall have abundant supplies and lower prices.

Money continues abundant with large importations of specie. The Weather is now favorable for getting in spring crops. We continue to have gloomy reports of the wheat crop being more or less winter killed; yet we doubt whether this is much greater than usual.

TRANSACTIONS OF THE

MASSACHUSETTS HORTICULTURAL SOCIETY.

THE Massachusetts Horticultural Society announces to the Public, that its Committee of Publication is preparing to publish the first number of a series of Transactions of this Society.

This publication has been for some years in contemplation, and materials have been collected for this purpose; but it has been hitherto delayed until the funds of the Society should enable it to be produced in a style of excellence which could not fail to render it both permanent, and an honor to the advanced state of the Horticulture of the present day.

It is intended that the work shall be in ROYAL OCTAVO, and the numbers shall appear as frequently as materials accumulate; each shall contain from four to six PLATES, chiefly of Fruits, but occasionally of Flowers, drawn and colored from nature, by the best talent the country can produce, and also the proceedings of the Society, including the reports of the weekly and annual exhibitions, to the date of publication.

The society hopes soon to offer such premiums for able communications on Horticultural subjects, as shall secure to these Transactions papers containing information of great practical value to all interested in this pursuit.

Although the authors of papers will alone be generally responsible for their contents, yet all accounts and descriptions of Fruits will be published under the immediate supervision of the Fruit Committee, and of Flowers under that of the Flower Committee; so that the authenticity of the Society will be attached to the most essential portions of their Transactions.

To establish a standard for all the present varieties of fruit, and to enable the public to judge of the quality of new kinds, as they shall be presented from imported trees, or from varieties originating in this country, will be one of the principal purposes of these Transactions, and will receive the particular attention, not only of the Committees of this Society, but also of the most experienced of its individual members.

The price to the members of the Society, will be about the cost of plates, printing, &c., and will not exceed seventy-five cents per number—to others the charge will be one dollar.

All communications intended for publication, may be addressed to J. E. TESCHEMACHER, Esq., Corresponding Secretary of the Society, Boston.

Orders and subscriptions for these Transactions, may be addressed to W. D. TICKNOR & Co., publishers, corner of Washington and School streets.

Horticultural Hall, School St., }
Boston, March 25, 1847. }

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Fayette, N. Y., February 16th, 1847. 3t

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T. S. GOLD.
a2t

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